STOCKHOLM SCHOOL OF ECONOMICS
1351 Master's thesis in Business Management
Academic year 2025

Harmonizing Innovation and Ecosystem Legitimacy

A Single-Case Study of Google's Generative AI Initiatives in the Music Industry

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Abstract
When disruptive innovation threatens the roles and value propositions of key complementors, the pursuit of progress risks destabilizing the very partnerships critical to the platform's continued success. Thus, disruptive innovation introduced by incumbent orchestrators within platform ecosystems presents a strategic dilemma. While prior research on disruptive innovation has primarily focused on incumbent responses to external threats, recent work emphasizes the role of ecosystems, yet it largely overlooks how disruption unfolds when initiated by the incumbent platform orchestrator itself. This study addresses this gap by examining how an incumbent platform orchestrator explores the introduction of potentially disruptive innovation while preserving ecosystem legitimacy. Exemplified by Google and its introduction of generative AI in the music industry, the research adopts a qualitative, single-case study design, drawing on interviews with actors across the platform ecosystem, complemented by secondary sources. By synthesizing institutional theory and platform ecosystem literature, this study reveals that legitimacy preservation is not achieved by avoiding change, but by shaping how it unfolds. Our findings indicate this objective can be achieved through outsourcing institutional entrepreneurship, leveraging complementors' reputational capital, and strategically co-creating legitimacy. Additionally, the findings highlight that legitimacy is negotiated not only through alignment with current institutional pillars but also in anticipation of future ecosystem outcomes. Furthermore, we identified two additional individual characteristics, power position and performance pressure, that modulate the relative influence of institutional pressures. This study contributes to existing literature on disruptive innovation by offering a processual account of how innovation and legitimacy are co-managed in complex, collaborative environments. The insights advance our understanding of strategic innovation governance in platform ecosystems and inform practitioners seeking to balance ecosystem health with technological advancement.

Keywords: Legitimacy, Institutional Theory, Disruptive Innovation, Platform Ecosystems, Incumbent Platform Orchestrator

Acknowledgement
Firstly, we would like to express our sincere gratitude to our supervisor, Roberto Verganti, for providing us with his guidance and thoughtful feedback throughout this process.

Secondly, we also want to extend our appreciation to the individuals and organizations who generously shared their time and perspectives during interviews. Your contributions enriched our understanding and made this research possible.

Cheers,
Saga Blomström & Ebba Hoffenback

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Abbreviations

AI	Artificial Intelligence
CISAC	International Confederation of Societies of Authors and Composers
GEMA	Gesellschaft für musikalische Aufführungs- und mechanische Vervielfältigungsrechte [Society for Musical Performing and Mechanical Reproduction Rights]
IFPI	International Federation of the Phonographic Industry
LLM	Large Language Model
SACEM	Société des Auteurs, Compositeurs et Éditeurs de Musique [Society of Authors, Composers and Publishers of Music]

Term	Definition
Platform Ecosystem	A group of interdependent actors that co-create and exchange value around a core platform technology through complementary contributions. Synthesized from Jacobides et al. (2018); Adner (2017); Gawer (2021)
Platform Orchestrator	A central actor in the platform ecosystem that connects and coordinates partners by setting rules and builds shared values without directly controlling them. Synthesized from Jacobides et al. (2018); Lusch & Nambisan (2015)
Complementor	An interdependent actor in a platform ecosystem, whose products add value to the core platform and enhance its value to users. Synthesized from Jacobides et al. (2018), Adner (2017); Gawer & Cusumano (2002)
Disruptive innovation	An innovation that triggers substantial shifts in how value is created, roles are defined, and coordination occurs within an industry. Adapted from Kumaraswamy et al., (2018)
Incumbent firm	An established firm with a strong market position and extensive resources in the present industry Adapted from Christensen (1997)
Institutions	The formal rules, norms, and shared belief systems that structure behavior, shape expectations, and define what is considered legitimate within a given social or organizational field. Adapted from Scott (1995; 2001; 2008; 2013)
Legitimacy	The generalized perception that an organization's actions are accepted and supported within a given system of norms, values, and expectations. Adapted from Suchman (1995)
Organizational field	A community of interrelated firms that collectively shapes norms, practices, and expectations in the institutional environment. Synthesized from DiMaggio & Powell (1983); Scott (2008)
Artificial Intelligence	A set of technologies that enable computers to perform a variety of advanced functions that can reason, learn, and act in a certain way that normally would require human intelligence. Adapted from Google Cloud (n.d-a)
Generative Artificial Intelligence	A subset of Artificial Intelligence that generates new, contextually relevant outputs that resemble the original input data. Adapted from Google Cloud (n.d-b)
Large Language Models	Advanced artificial intelligence models which are trained on a vast amount of data, which can be used to generate content and perform other natural language processing tasks. Adapted from Google Cloud (n.d-c)

1. Introduction

1.1 Background

In recent years, Google has pushed the boundaries of technological innovation. As generative artificial intelligence (AI) emerged as one of those areas, one particular breakthrough pertains to AI generating music. While this development holds the potential to open up new revenue streams for the company, as well as empower new creators, democratize access to music production, and introduce novel artistic possibilities, it also raises significant strategic concerns. As the owner of YouTube, one of the largest streaming platforms globally, Google's success is inextricably linked to its partnerships with artists, record labels, and other key players in the music industry (YouTube, 2023). These partnerships are essential to the platform's value proposition, as they provide content to the platform. Yet, if the very innovation Google has introduced were to replace human artists or significantly reduce other actors' opportunities to create value, it could undermine their trust and spur resistance. In this case, the same innovation that promises value creation opportunities may simultaneously erode the support of the industry players that sustain its platform, ultimately destabilizing the relationships that have been foundational to YouTube's success.

This tradeoff of balancing the potential rewards of innovation with the risks of alienating key partners serves as a striking example of the challenges faced by platform incumbents in today's rapidly evolving technological landscape. Over the past decade, technological progress has accelerated significantly and is reshaping industries at a pace that challenges firms' ability to adapt (Yee et al., 2024). In this environment, the ability to innovate has evolved from a competitive advantage to a prerequisite for survival. Yet, for Google and other incumbent platform orchestrators, the pursuit of innovation is far from straightforward, as the success of platform ecosystems relies heavily on the ongoing engagement of external complementors who co-create value and drive network effects (Jacobides et al., 2018; Gawer, 2021).

For an incumbent platform orchestrator, introducing an innovation that has the potential to disrupt or threaten the role of these complementors risks undermining essential collaborations. If these stakeholders perceive the innovation as illegitimate or exploitative, they may disengage,

leading to a loss of value creation and network effects for the platform. At the same time, entirely foregoing such innovations may prevent the ecosystem from evolving in ways that benefit emerging creators or align with new consumer preferences. In this context, the orchestrator faces a critical choice: continue to innovate and risk alienating the very entities that sustain its platform ecosystem, or preserve existing practices and risk becoming irrelevant in a rapidly evolving market. Understanding how incumbents can navigate this strategic dilemma sets the stage for the following sections and anchors the present study in a debate of scholarly urgency.

1.2 Previous Research and Research Gap

Research on innovation with the potential to disrupt, challenge, and displace incumbents has attracted substantial scholarly attention throughout the years (See e.g., Christensen, 1997; Christensen & Raynor, 2003; Damanpour, 1996; Danneels, 2004; Kumaraswamy et al., 2018; Öberg, 2023). In the existing body of disruption research, emphasis has predominantly been placed on new entrants replacing incumbents or on sector-level disorder (Öberg, 2023). In those instances where attention is directed toward the incumbent firm, scholars have largely focused on their responses and adaptations to external threats of radical innovation (See e.g. Anthony et al., 2008; Christensen, 1997; Bergek et al., 2013; Markides & Oydon, 2010; O'Reilly and Tushman, 2016).

More recent scholarship has emphasized that disruptive innovation unfolds within interconnected networks rather than in isolated firms (Ansari et al., 2016; Kumaraswamy et al., 2018). Consequently, disruption extends beyond the boundaries of a single organization, affecting the broader ecosystem on which it depends (Adner, 2017). This is particularly salient in multi-sided platform ecosystems, where value creation depends on the ongoing participation of external complementors (Jacobides et al., 2018; Gawer, 2021). In this context, disruption is not just a matter of technological novelty but of ecosystem reconfiguration, with significant implications for all actors involved (Kumaraswamy et al., 2018). Accordingly, Ozalp et al. (2018) assert that the nature of platform ecosystems' interdependent relationships differs from the traditional context in which disruptive innovation theory originated. The authors further contend that our understanding of how disruption unfolds in such contexts is limited, hence making it an intriguing area to investigate further.

Although a few studies have begun to explore how disruptive innovation interacts with platform dynamics, most of this research continues to center on new entrants. For instance, Ansari et al. (2016) examined the challenges faced by new entrants who must gain the support of incumbent complementors they may later displace. However, less attention has been given to situations where the incumbent platform orchestrator is the source of disruption, making this phenomenon analytically distinct. While new entrants often encounter difficulties in accessing complementary resources within an established ecosystem, incumbent orchestrators already possess these ties, which can facilitate innovation (Ansari et al., 2016; Kumaraswamy et al., 2018). Yet, these same established relationships can also create challenges. Unlike new entrants, incumbents are subject to heightened scrutiny due to their extensive relational ties, reputational visibility, and institutional embeddedness, which together shape how their innovations are interpreted by ecosystem stakeholders (Adner, 2017; Gawer, 2021; King & Whetten, 2008; O'Reilly & Tushman, 2016).

Furthermore, among the limited body of research that addresses incumbent-led disruption in platform contexts, scholars have primarily focused on complementors' capability to keep pace with the platform's evolving technological trajectory. For instance, Ozalp et al. (2018) examined how a platform orchestrator's ability to sustain complementors may be compromised if its complementors lack the readiness to adapt to new technological demands introduced by innovation. While the aforementioned line of inquiry provides valuable insight into the capability side of complementor engagement, our research adopts a distinct perspective. Rather than examining the complementors' ability to contribute, we shift our focus to the willingness of complementors to remain engaged. This is significant as this, in addition to the capabilities of complementors and as noted earlier, is vital for the platform's continued success. Hence, it prompts a critical inquiry into the role of legitimacy in platform ecosystems undergoing incumbent-led disruption. When innovation is perceived as illegitimate, perhaps because it threatens existing roles, norms, or value distribution, complementors may resist or withdraw from the platform, even if they possess the technical ability to adapt (Suchman, 1995). For platform orchestrators, maintaining legitimacy among ecosystem actors is thus not optional, it is a prerequisite for sustaining engagement and preserving network effects.

Accordingly, this study addresses an underexplored gap of how incumbent platform orchestrators, with their already established network of complementors, can introduce disruptive innovations that can threaten their ecosystem's value logic. In particular, we investigate the mechanisms through which orchestrators can maintain or reconstruct legitimacy among complementors. By focusing on incumbent-led disruption, this research shifts attention from defensive responses to proactive orchestration and from technical feasibility to normative alignment.

1.3 Purpose and Research Question

Against this background, this study aims to increase understanding of how incumbent platform orchestrators can navigate external environmental pressures with internal strategic imperatives to introduce and integrate potentially disruptive innovations without undermining their ecosystem legitimacy. Through an in‑depth single-case study of a leading platform orchestrator in the music industry, that has developed a technology capable of redefining its complementors' value propositions, this study examines the dual process by which incumbents both defend their market position and sustain critical partnerships. Building upon these considerations, the study is guided by the following research question:

"*How can an incumbent platform orchestrator explore the introduction of a potentially disruptive innovation while preserving its legitimacy within the platform ecosystem?*"

1.4 Expected Contribution

From an academic standpoint, this study is expected to contribute with a novel perspective to disruptive innovation by concentrating on how incumbent platforms reconcile the need for innovation with the risk of alienating key ecosystem partners. By addressing the aforementioned gap, it offers new insights into managing legitimacy and sustaining competitive advantage. Practically, this study expects to provide strategic insights for platform-based businesses facing similarly complex dynamics where legitimacy is of importance to maintain complementor support.

1.5 Delimitations

To set a clear and relevant scope for this study and to achieve its purpose, several delimitations have been established. First, as this research takes a single-case approach, the study is limited to one incumbent firm and its specific industry. The industry has its own institutional environment and ecosystem structure, which may differ significantly from those found in other sectors. As a result, while the case provides an opportunity for an in-depth exploration, the findings may not be directly applicable to other organizational contexts and industries. Second, the study focuses exclusively on generative AI for music creation. This focus was chosen to narrow the scope to enable the investigation of a real-life scenario. Nevertheless, given that the present study examines only one type of potentially disruptive innovation, it may misrepresent strategies for preserving legitimacy following other types of innovations.

2. Literature Review

This section provides a review of the relevant literature, including disruptive innovation (2.1), ecosystems in management research (2.2), and institutional theory (2.3). This will be followed by a synthesis of the presented literature (2.4), after which the conceptual framework developed is presented (2.5).

2.1 Disruptive Innovation

The concept of disruptive innovation has gained prominence as a way to explain how certain new ideas or technologies can overturn established industries. First popularized by Christensen (1997), disruptive innovation refers to a specific pattern in which an entrant innovation transforms the market by either creating a new market or entering at the bottom of an existing market, ultimately displacing the established products and firms. For the purpose of this thesis, we do not adopt disruptive innovation as a prescriptive theory in the manner of Christensen (1997), but rather as a descriptive phenomenon through which new ideas or technologies may unsettle established markets. Accordingly, we define disruptive innovation broadly to include any form of innovation that has the potential to displace incumbent offerings by altering the basis of value creation.

However, it is important to note that not all radical or revolutionary innovations are disruptive (Christensen & Raynor, 2003; Christensen et al., 2015; Markides, 2006). An innovation may incorporate advanced technology but not necessarily transform the market structure, which makes it sustaining rather than disruptive (Danneels, 2004; Markides, 2006). Whether incremental or radical, sustaining innovations enhance products or services that incumbents and their current customers already use (Christensen & Raynor, 2003; Danneels, 2004). The hallmark is the market trajectory rather than the degree of technological novelty (Christensen & Raynor, 2003). Accordingly, disruptive innovation is marked by its potential to change the basis of competition, competing on new dimensions or in entirely new arenas, thereby dislodging established players.

Taken together, the effects and consequences of disruptive innovation can be profound for both industry incumbents and market structures. As disruptive offerings improve, established firms

are often forced to rethink their strategies or face the risk of displacement (Govindarajan & Kopalle, 2006; Markides, 2006). This process can lead to significant restructuring within incumbent organizations or drive them out of the market entirely. Ultimately, disruptive innovation not only transforms consumer expectations but also sparks broader transitions in technology, business models, and competitive strategy (Christensen & Raynor, 2003; Kumaraswamy et al., 2018).

For theoretical clarification, we stress the importance of establishing a rationale for how the different actors are defined and referred to. In the theoretical chapter (2.1), the term "incumbent" aligns with the classical definition, referring to the actor that becomes disrupted by an innovation. Following this reasoning, the "incumbent" in this study refers to the complementors within the music platform ecosystem who are facing potential disruption. However, throughout the remainder of this study, including the empirical analysis, the term "incumbent" is employed to describe the focal platform orchestrator. Meanwhile, the group subject to disruption will be referred to as complementors. This distinction allows us to respect established theoretical underpinnings where "incumbent" connotes the disrupted player, while maintaining clarity about our principal focus on how an incumbent platform orchestrator can introduce a disruptive innovation that potentially unsettles the value creation opportunities of its complementors.

2.2 Ecosystems in Management Research

This section introduces ecosystem theory to get a nuanced understanding of the external environment in which the introduction of potentially disruptive innovation occurs. The following section traces the conceptualizations of ecosystems from their origins to contemporary critiques (2.2.1). Thereafter, platform ecosystems will be examined, including the orchestrator's role in governing value co-creation (2.2.2).

2.2.1 Conceptualizations of Ecosystems

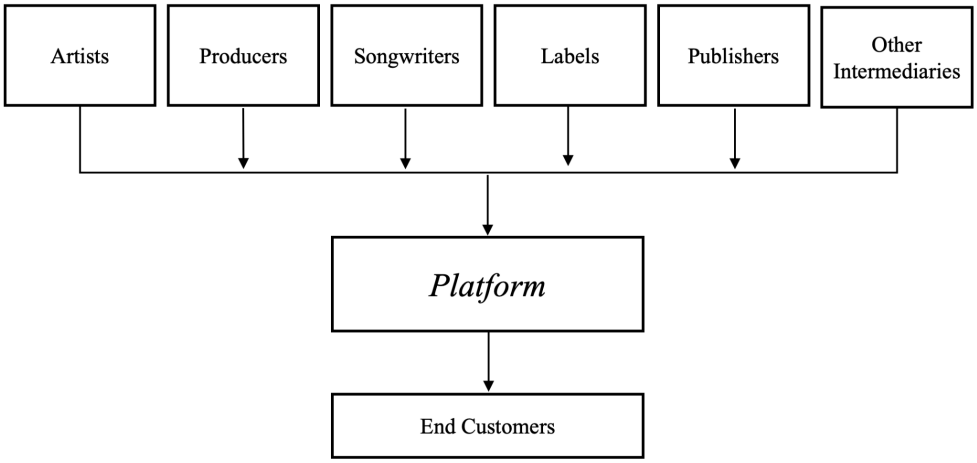
The term business ecosystem refers to a network of interdependent organizations connected by non-generic complementarities that collaborate and co-evolve capabilities around a focal value proposition, creating and capturing more value together than any could do alone (Adner, 2017; Jacobides et al., 2018; Oh et al., 2016). Early notions of business ecosystems were popularized

by Moore (1993), who likened companies to species in a co-evolving ecosystem. In Moore's view, firms are not isolated actors but part of a structured community of suppliers, producers, competitors, and other stakeholders that align with one or more central companies leading the ecosystem.

Although the ecosystem concept gained popularity across strategy, innovation, and entrepreneurship research (Adner, 2017; Adner & Kapoor, 2010; Jacobides et al., 2018), it also attracted criticism for its ambiguity regarding how to determine its boundaries, making it challenging to identify exactly where one ecosystem ends and another begins (Autio & Thomas, 2013; Shipilov & Gawer, 2020; Iansiti & Levien, 2004b). Scholars argue that the fluid, overlapping nature of inter-organizational ties makes it difficult to ascertain who truly counts as a member of a given ecosystem and how surrounding or temporary participants fit into the broader structure (Autio & Thomas, 2013). Acknowledging this critique, we stress the importance of clarifying the boundaries applied to this thesis. As we recognize that complementors can contribute to multiple platforms simultaneously, this thesis takes an ecosystem-by-affiliation approach, where ecosystems are viewed as "communities of associated actors defined by their networks and platform affiliations" (Adner, 2017, p. 2). This helps explain overlapping memberships that static architectural perspectives overlook (Autio & Thomas, 2013). Consequently, this perspective delineates boundaries more clearly by focusing on all interdependent roles of complementors central to the platform technology, thereby reducing the ambiguity inherent in broader definitions (Jacobides et al., 2018). As this single-case study is situated in the music industry, these complementors include artists, producers, and songwriters (providing creative content), labels (handling production and marketing), publishers (managing rights and royalties), and various other intermediaries and service providers that influence value creation opportunities (see figure 1). The next subsection delves deeper into the nature of platform-centric ecosystems, their structure, and governance.

Figure 1

Illustration of a Platform Business Ecosystem



2.2.2 Platform Ecosystem Orchestration

Platforms often act as intermediaries that connect two or more distinct groups of customers who create and exchange complementary value by leveraging indirect or cross-side network effects (Evans & Schmalensee, 2008; Gawer, 2014; Jacobides et al., 2018). These network effects make a platform more attractive to both users and complementors as participation increases, ultimately increasing the value of the platform (Gawer, 2021). The larger the ecosystem becomes, the more likely it is to dominate the market, potentially leading to a winner-take-all outcome (Lee et al., 2015). Therefore, the key challenge is not just to introduce an innovation to the ecosystem, but rather to do this in a way that retains the platform's attractiveness and therefore ensures that critical complementors still want to participate. Failing to maintain this balance may not only weaken the network effects that sustain the platform's value but also risk jeopardizing the ecosystem's integrity.

Unlike a traditional vertically integrated supply chain, relationships in a platform ecosystem are not bound by formal contracts or ownership (Jacobides et al., 2018). Instead, the platform orchestrator[1] relies on setting architectural standards and governance policies to coordinate independent contributors (Mukhopadhyay & Bouwman, 2019). According to Eaton et al. (2015), complementors within a platform ecosystem can exert influence over platform governance;

[1] Also referred to as keystone, platform leader, platform owner, ecosystem architect amongst others

however, their capacity to shape the vision and evolution of a platform is limited. Consequently, the platform orchestrator assumes the role of an ecosystem orchestrator, responsible for enabling and aligning the activities of partners who are outside its direct hierarchical control (Jacobides et al., 2018). Effective governance for continued value creation, therefore, hinges on influencing and incentivizing partners, rather than commanding them.

Mukhopadhyay & Bouwman (2019) identified coordination mechanisms as an essential dimension in platform governance. The coordination process in these ecosystems is characterized by its complexity, as platform orchestrators and various complementors each bring their motivations, business objectives, and industry logic (Kumaraswamy et al., 2018; Lusch & Nambisan, 2015; Mukhopadhyay et al., 2016). To ensure continuous collaboration between the platform and complementor, mitigate opportunism, and resolve conflicts among participating actors, platform orchestrators rely on both tacit (e.g., shared worldviews, values) and explicit (e.g., formal rules, protocols) governance structures (Lusch & Nambisan, 2015; Mukhopadhyay et al., 2016). The integration of shared value systems facilitates the emergence of self-control, which enhances a heightened sense of autonomy among complementors (Goldbach & Kemper, 2014; Goldbach et al., 2017). This, in turn, can improve the quality of their contributions and reinforce their long-term commitment to the ecosystem, thereby reducing the need for formal behavioral controls (Goldbach & Kemper, 2014; Goldbach et al., 2017). Establishing a shared value system is thus regarded as essential to maintain a positive perception among complementors of the ecosystem's ongoing activities and future directions. Shared values alone, however, are insufficient. Effective governance also depends on clear protocols, rules for resource exchange, and dispute-resolution mechanisms to guide collaboration (Nambisan & Sawhney, 2011; Tiwana et al., 2010; Mukhopadhyay et al., 2016). Lusch and Nambisan (2015) describe this set of agreements and guidelines as architectures of participation, which provide transparency and predictability for co-creation activities.

Achieving and maintaining ecosystem health forms the foundation for sustainable platform success, as a weakness in any critical group can compromise the entire system (Iansiti & Levien, 2004a). Beyond the mechanisms of governance and coordination, the platform orchestrator must therefore consider diverse interests and needs of its partners, ensuring that co-created value is distributed in ways that keep all stakeholders motivated (Isckia et al., 2020). If complementors

lose incentives to participate or innovate due to insufficient rewards or overly restrictive governance, the platform's attractiveness to end-users can rapidly diminish, potentially triggering an ecosystem-wide collapse (Gawer & Cusumano, 2002; Parker et al., 2016).

Taken together, a platform ecosystem's structure is one of interdependence without hierarchy, requiring the orchestrator to govern through architecture and influence rather than direct. The orchestrator's challenge, which is central to our research aim, is to introduce change and innovation into its ecosystem in a way that ensures the orchestrator's actions are perceived as legitimate and its reputation and favorable partnerships remain intact. By synthesizing the above literature on platform ecosystems (See Appendix 8.1), we summarize the platform orchestrators' personal considerations and governance responsibilities to maintain effective governance as outlined in table 1.

Table 1

Visual Presentation of Platform Orchestrator's Responsibilities and Considerations

Platform Orchestrator

Governance Responsibilities	***Considerations***
● Enable and align activities of independent partners	● Preserve cross-side network effects
● Balance value distribution	● Maintain reputation and trust
● Influence and incentivize complementors via tacit governance	● Retain critical complementors
● Influence and incentivize complementors via explicit governance	● Sustain ecosystem health

2.3 Institutional Theory

This section complements the use of ecosystem theory to get a nuanced understanding of how actors gain and maintain legitimacy. Institutional theory thus provides a lens to better understand how the broader environment exerts influence over organizational behavior. In this section, we will discuss the conceptualization of institutional theory (2.3.1), institutional entrepreneurship (2.3.2), and institutional theory and ecosystems (2.3.3).

2.3.1 Conceptualization of Institutional Theory

Institutional theory seeks to explain how organizations' external environment constitutes institutions that influence organizational behavior (Meyer & Rowan, 1977; DiMaggio & Powell, 1983; Scott, 2001). In essence, institutions shape what beliefs and behaviors are and are not considered to be legitimate among actors within a certain environment (Scott, 2013), which is fundamental in understanding how organizations are granted acceptance and support (Suchman, 1995). Scheuer (2020) emphasizes how legitimacy is not something an organization inherently possesses, but rather actively constructs through stakeholder management. Furthermore, King and Whetten (2008) argue that legitimacy and reputation are mutually reciprocal concepts; while legitimacy reflects an organization's conformity to institutional norms, reputation captures stakeholder evaluations that can reinforce or undermine legitimacy.

In seeking legitimacy, organizations will often succumb to institutional pressures that dictate their behavior, resulting in conformity (Meyer & Rowan, 1977; Suddaby, 2013). In their seminal work, DiMaggio and Powell (1983) conceptualized these institutional pressures as the coercive, normative, and mimetic mechanisms of social reproduction. While influential, this framework has been critiqued for placing too much emphasis on structural constraints where organizations behave as passive recipients of change. Since this study takes an ecosystem perspective, where ecosystem members collectively contribute to a joint value proposition, we argue for the need to adopt a view where institutions are shaped by the collective interpretation of all institutional members.

Accordingly, this study draws on Scott's (2013) *regulative*-, *normative*-, and *cultural-cognitive* pillars[2] to capture how rules, norms, and shared belief systems emerge in interaction and are continuously negotiated and internalized by ecosystem actors, rather than simply imposed by external forces. This focus underscores that legitimacy is not solely a matter of external conformity; it also involves shared mental models, cognitive frameworks, and taken-for-granted assumptions that shape how individuals within organizations interpret their environment (Scott, 2013). By synthesizing Scott's (1995; 2001; 2008; 2013)[3] work (see Appendix 8.2), we present an outline for analyzing organizational behavior as shaped by institutional pillars in table 2.

Table 2

Synthesis of Scott's Work on Institutional Pillars and Its Diverse Elements

Pillar	Definition	Basis of Legitimacy
Regulative	Rules, laws, and sanctions enforced by formal authority that prescribe the exact behavior expected of actors	Legitimacy in this mode is achieved by legal sanction and conformity to established regulations
Normative	Shared values, norms, moral imperatives, and social expectations about what is considered appropriate that guide behavior	Legitimacy is achieved by compliance with moral and ethical expectations recognized by a community
Cultural-Cognitive	Taken-for-granted assumptions and shared understandings that shape how organizations perceive and act in their environment	Legitimacy comes from cultural support as institutional actions are seen as fitting with prevailing cognitive schemas and shared worldviews

(Scott, 1995; 2001; 2008; 2013)

2.3.2 Institutional Entrepreneurship

To explain how actors can actively change established institutions, scholars developed the concept of institutional entrepreneurship (DiMaggio, 1988; Battilana et al., 2009; Micelotta et al., 2017). Battilana et al. (2009) argue that there are two central factors which enable the introduction of institutional entrepreneurship. Firstly, *social position* relates to the entrepreneurial actor reflecting on their power, access to resources, and perceived legitimacy as change agents. Additionally, occupying a core position facilitated change by enabling the

[2] Also referred to as mechanisms, pressures, structures, boundaries amongst others
[3] References to the synthesized framework (Appendix 8.2) will hereafter be cited as Scott (2013) throughout this study

mobilization of greater resources (Greenwood & Suddaby, 2006). Despite this, even actors situated outside the organizational field can assume the role of institutional entrepreneurs, initiating change from less central positions (Maguire et al., 2004). Another factor influencing the possibility of institutional entrepreneurship are the *field characteristics* of the organizational field (Battilana et al., 2009). The absence or low degree of institutions creates greater opportunities for actors to introduce and legitimize change (Maguire et al., 2004; Mair & Martí, 2009), while stronger institutions constrain organizations to pursue entrepreneurial behavior (Wijen & Ansari, 2007).

The institutional entrepreneurship process is enforced through divergent change implementation activities (Maguire et al., 2004; Battilana et al., 2009). Firstly, *creating a vision* is important to frame the change to resonate with key stakeholders in the organizational field (Battilana et al., 2009). Secondly, by *mobilizing allies,* the entrepreneur can gather support from key stakeholders to strengthen the ability to implement change (Maguire et al., 2004). This support results from the effort made by the institutional entrepreneur to build partnerships or alliances, thereby creating a unified front to challenge the status quo (Battilana et al., 2009). Lastly, it is important to *sustain change*, which entails motivating others to achieve and sustain the vision (Suddaby & Greenwood, 2005).

2.3.3 Institutional Theory and Ecosystems

To delineate the boundaries of a community who are subject to the institutional pressures collectively shaped by its members, DiMaggio and Powell (1983) introduced the concept of organizational fields. Similar to the view of ecosystem-by-affiliation (Adner, 2017), as undertaken in this study, Scott (2008) underscores how organizational fields are not limited to direct exchange relationships among actors but instead encompass all relevant stakeholders. Essentially, ecosystems and organizational fields share similar characteristics, as both concepts emphasize actors' interdependence within broader structural and institutional contexts (Adner, 2017; Scott, 2008). Therefore, we view the delineation of actors belonging to an organizational field conceptually the same as those who belong to the platform ecosystem. Accordingly, field participants will be regarded conceptually the same as ecosystem participants, as described in Chapter 2.2.1.

2.4 Synthesis and Research Gap

When considered collectively, the preceding literature on disruptive innovation, ecosystems in management research, and institutional theory outlines three essential building blocks. First, they clarify why an orchestrator might wish to launch a disruptive offering, as the deliberate disregard of a breakthrough innovation can potentially result in future competitive disadvantages. Second, they establish that value creation is contingent upon non-generic complementarities and on an orchestrator's ability to govern (Adner, 2017; Jacobides et al., 2018). It also catalogs the coordination instruments an orchestrator can employ in an interdependent yet non-hierarchical setting to incentivize complementors and clarify rules of participation (Lusch & Nambisan, 2015; Mukhopadhyay & Bouwman, 2019) and the health metrics designed to keep complementors engaged (Iansiti & Levien, 2004b; Isckia et al., 2020). Third, they explain that sustained engagement is inextricably linked to the ecosystem's perception of legitimacy (Suchman, 1995). This acceptance is attained through regulative compliance, normative alignment, and shared cognitive frames (Scott, 2013), all of which can be actively reshaped through entrepreneurial incentives (Battilana et al., 2009; Maguire et al., 2004).

Taken together, these streams tell us why an orchestrator might pursue a disruptive innovation, what governance levers are available to coordinate interdependent actors, and why legitimacy is a central mechanism for sustained collaboration. Despite these insights, the literature stops short of showing how the three building blocks interact and are deployed once the orchestrator's innovation threatens the very complementors whose collaboration sustains network effects. Specifically, prior research offers a limited explanation of how an orchestrator can introduce potentially disruptive innovation when disruption itself is not the objective and complementor contributions remain indispensable. Concurrently, ecosystem studies prove inadequate in integrating effective governance mechanisms with the unique context in which the orchestrator's new innovation directly undermines the partners' existing value propositions. Finally, institutional theory directly addresses legitimacy maintenance under change and supplies micro-process concepts, such as ally mobilization, for its successful integration. Nevertheless, it operates at a level of abstraction that seldom accounts for the technical interdependencies and economic incentives that are unique to digital platforms. Consequently, an integrative process explanation of the interplay among the orchestrator's innovation exploration, the staged

management of governance mechanisms, and the concurrent construction and defense of its legitimacy is still lacking. Addressing this gap will inform practitioners who must balance innovation imperatives with the vitality of their ecosystems.

2.5 Conceptual Framework

Drawing on the findings from the literature review, we synthesize the insights into a process framework with the ultimate aim of understanding how incumbent platform orchestrators can navigate external environmental pressures with internal strategic imperatives to introduce and integrate potentially disruptive innovations without undermining their ecosystem legitimacy. Informed by the use of ecosystem theory and institutional theory, the framework emphasizes how organizations operate within a dynamic environment rather than in isolation, characterized by both interdependent partnerships and the institutional environment.

Figure 2 presents the conceptual framework guiding this study. By viewing ecosystems and organizational fields as conceptually similar, we analyze the external pressures influencing a platform's strategic choices on innovation through its institutional pressures. We also acknowledge the platform's role as an orchestrator for its ecosystem, responsible for governance structures and enabling value creation among complementors. Based on these assumptions, the framework is visualized in two parts: the external environment and the platform itself.

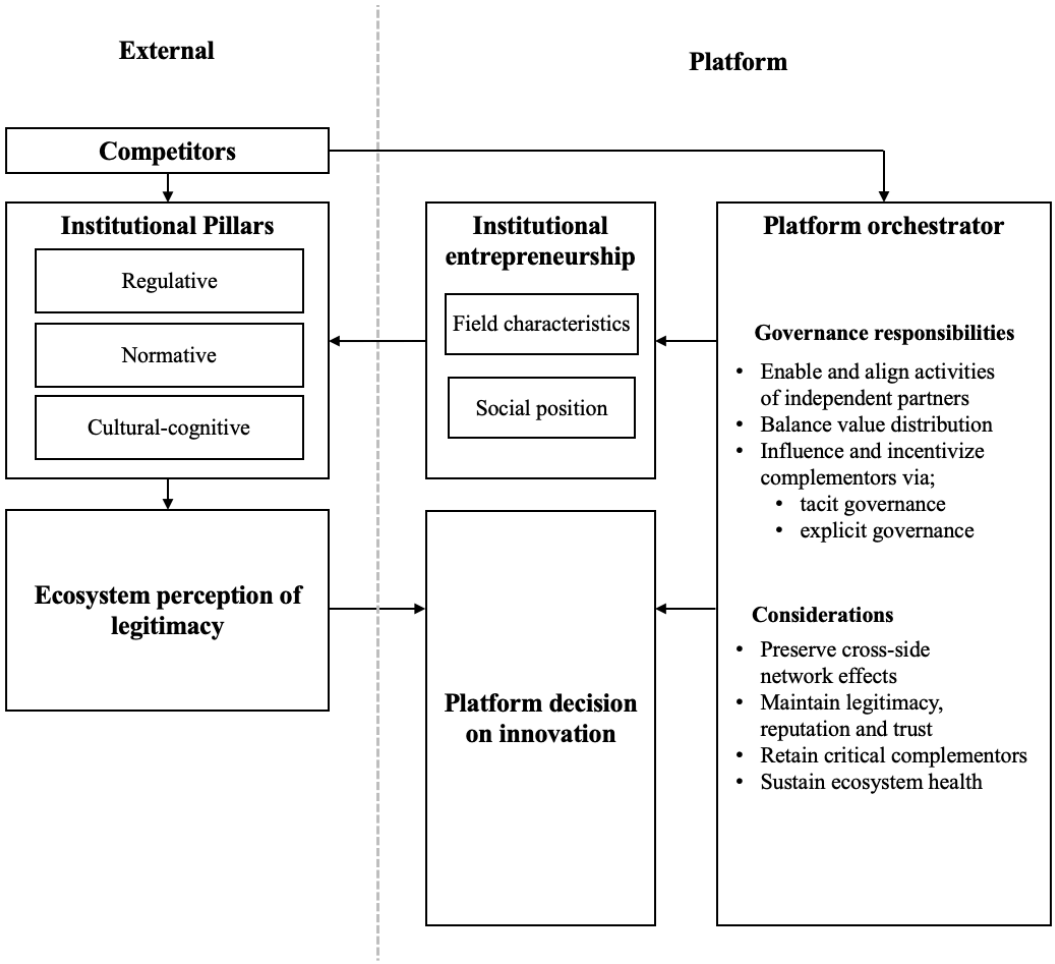
The left-hand side establishes a frame for understanding the external pressures, informing us of what is considered legitimate within the ecosystem. At the top lie the institutional pillars, encompassing the regulative, normative, and cultural-cognitive pillars (Scott, 2013). The pillars impose constraints and guide the boundaries within which the platform must explore innovation to maintain legitimacy (Suchman, 1995). As actors outside the ecosystem can also influence change on the institutional pillars (Maguire et al., 2004), we acknowledge the influence competitors might have in shaping these.

The right side represents the platform orchestrator, providing us with a lens to analyse how decisions on innovation have been shaped by external pressures. Ultimately, its decisions revolve around how to navigate key stakeholder expectations of legitimacy while introducing an innovation that challenges those very same expectations. Moreover, the figure acknowledges the

responsibilities and considerations of a platform orchestrator (see Appendix 8.1) that are considered to guide its decisions, informing on how and why it might act in a certain way. Recognizing the importance of legitimacy for sustained support (Suchman, 1995), this has been added to its considerations in the conceptual framework. Further, the framework also acknowledges that organizations are not passive recipients of these institutional pressures (Battilana et al., 2009). Therefore, institutional entrepreneurship underscores their capability to actively influence and reshape institutional structures through strategic actions to create new boundaries within which the firm can act while remaining legitimate.

Figure 2

Conceptual Framework



3. Methodology

This chapter presents the methodological choices of the study. The section begins with the study's scientific research approach (3.1) and the scientific research process (3.2), followed by discussions on ethical and quality considerations of the study (3.3).

3.1 Scientific Research Approach

3.1.1 Methodological Fit

Given this study's exploratory aim to uncover how incumbent platform orchestrators explore innovation without eroding ecosystem legitimacy, we adopted a qualitative approach guided by an open-ended research question (Edmondson & McManus, 2007). This design allows theory to emerge directly from rich, contextual data, which is crucial in under-researched domains where significant research gaps demand an open-minded approach. Thus, it enabled us to get an in-depth understanding of the strategic actions of selected incumbents and the lived experiences of key actors within the focal platform ecosystem, as well as explore the presence of theoretical absence (Edmondson & McManus, 2007; Flick, 2009).

3.1.2 Research Design

Initially, we followed an inductive approach to gain understanding from preparatory interviews and to guide the development of relevant theoretical perspectives (Bell et al., 2022). This approach supported our exploration of how actors within the ecosystem experience their environment and the dilemma incumbents face while innovating. As the study progressed, we adopted an abductive approach to allow iteration between empirical findings and theoretical insights and to enable theory building based on new insights from the interviews (Timmermans & Tavory, 2012). The abductive approach facilitated a deeper understanding of the interplay between the institutional environment and the strategic choices made by the selected platform orchestrator.

By adopting a constructivist ontological stance, the study aimed to explore how different participants perceived and negotiated broader contextual pressures, thereby offering a nuanced perspective on the social reality they co-construct (Bell et al., 2022). This stance is appropriate

because it recognizes that institutions emerge and evolve continuously through interaction and human behavior (Scott, 2013). By examining the experiences of various ecosystem stakeholders, the study acknowledges that each participant contributes a unique narrative to the overall understanding of the ecosystem. This aligns with an interpretivist epistemology, which holds that knowledge is constructed through subjective interpretation (Bell et al., 2022). Through an interpretivist lens, we recognize that the interviewees' perception of their realities may differ from how we as researchers interpret them (Lee et al., 1991). Moreover, Suddaby (2013) calls for more interpretivist studies of institutional environments. We address this need by examining how actors within the platform ecosystem subjectively experience and make sense of their institutional contexts.

3.1.3 Single-Case Study Design

A single-case study design was chosen to capture the complexity and contextual nuances of how innovation unfolds within an existing ecosystem structure. As Yin (2014) argues, single‑case designs are well suited for investigating underlying mechanisms of complex phenomena that cannot be separated from their real‑world context. This design allowed us to examine how external pressures, stakeholder relationships, and internal strategic imperatives interact to shape the orchestrator's innovation decisions. By focusing on one focal case, this allowed for a deeper understanding of the contextual dynamics and captured actors' subjective experiences in rich detail (Bell et al., 2022).

3.1.4 Case Selection

As a leading platform, Google has an influential position where its actions can both empower and disrupt the network of interdependent stakeholders. Its ownership of YouTube, the world's largest video-sharing service with over 2.7 billion monthly users, also makes it one of the biggest music streaming services globally through its vast library of music content (Curry, 2025). Through YouTube and its AI research lab DeepMind, Google[4] possesses both the role of a technological innovator and a distribution channel, and therefore positions itself uniquely within the music industry. This synergy has enabled the development of AI-generated music tools that

[4] When referring to Google in this study, we focus specifically on its music-related initiatives through YouTube, DeepMind and its broader role in the music industry.

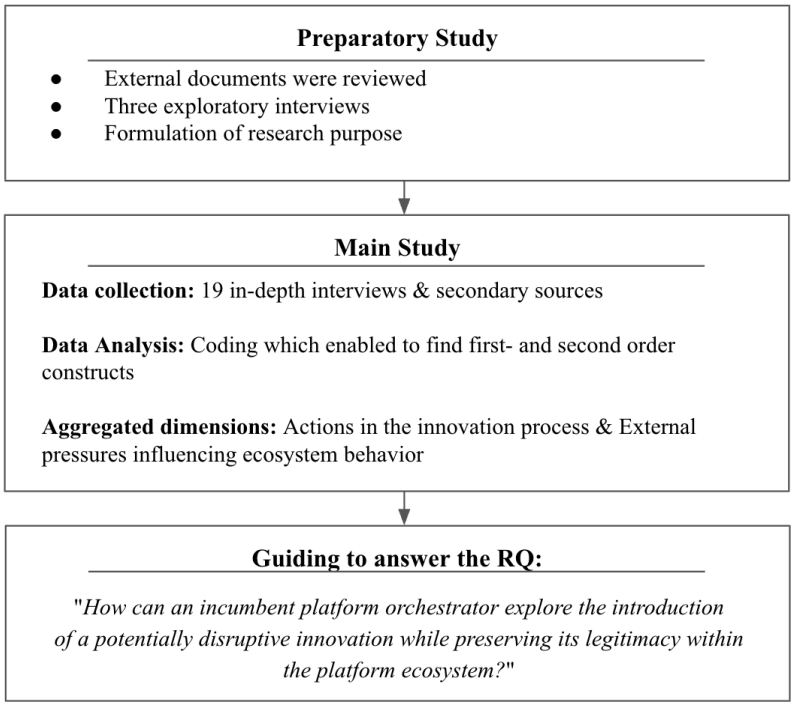
have the potential to expand value creation opportunities but also to threaten traditional revenue streams and governance structures among labels, artists, and other actors in the music industry. The focal innovation thus has the potential to disrupt the very complementors upon which it depends. Consequently, while this can contribute to new value creation opportunities and a strengthened position in the market, it also threatens Google's legitimacy and thereby the continued support by its complementors. In addition, the music industry is fundamentally shaped by long-standing relationships and is thus particularly sensitive to breaches of legitimacy. Hence, this constitutes an extreme case where no established best practice yet exists, therefore making the phenomenon under scrutiny especially visible and highly relevant for examination (Eisenhardt, 1989).

3.2 Scientific Research Process

After selecting the case company, the scientific research process proceeded as illustrated in figure 3. The process comprised two stages, the preparatory work (3.2.1) and the main study (3.2.2), both designed to address the research question.

Figure 3

Research Process Illustrated



3.2.1 Preparatory Study

Before the main study, external documents were reviewed to develop a comprehensive understanding of Google's historical innovations and decisions regarding AI music generation tools. In addition, a preliminary study was conducted comprising three interviews (see Appendix 8.3), which together provided valuable insights into the structural dynamics of the music industry as well as Google's historical engagement with the music industry.

Findings from these preparatory interviews underscored the high interdependence of actors in the music industry and the critical importance of relationships and reputation among participants, thus emphasizing the relevance of legitimacy. Guided by these insights, the research question was formulated, and an interview guide was subsequently developed (see Appendix 8.4). By developing a new interview guide, the same interviewees could be invited to participate in the main study.

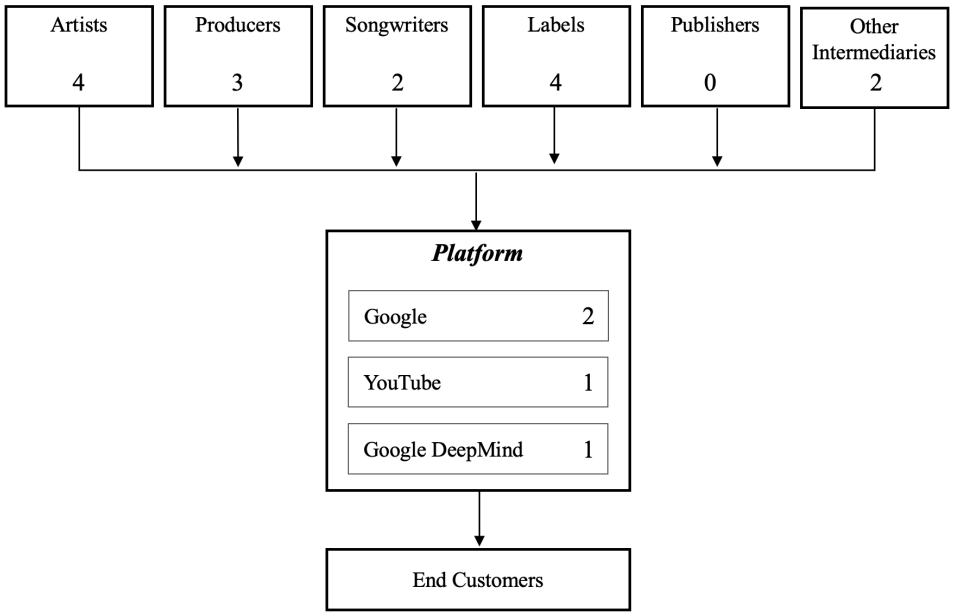
3.2.2 Main Study

3.2.2.1 Data Sample

In line with the case study design, initial interviews were conducted with relevant Google employees central to the development and introduction of AI music generation tools. After the preparatory study, we recognized the need to broaden our scope to include an ecosystem perspective, as we noticed the significant influence complementors' support has on Google's success. Therefore, the perspective of Google was complemented by that of its complementors, encompassing interviews with artists, record labels, representatives from AI companies collaborating with the music industry, and other central actors (see figure 4). Hence, a purposive sampling method was employed to capture both the external environment and internal strategic actions of the case organization (Bell et al., 2022).

Figure 4

Illustration of Interview Participants



Primary data were complemented by secondary sources, including company reports, academic articles, and corporate websites, to triangulate findings and obtain a holistic view of the case. Interviews continued until thematic saturation was reached, resulting in 19 main-study interviews and the three preparatory interviews (see Appendix 8.5). Confidentiality constraints prevent disclosure of direct quotes or detailed proprietary information from the Google interviews. However, these discussions were instrumental in interpreting secondary data and contextualizing insights that would have been difficult to appreciate otherwise.

Table 3

Overview of Data Collection by Type and Quantity

Data type	Number of Observations
Interviews	
Preparatory interviews	3
Main interviews	19
External documents	
Company reports	6
Company websites	52
Academic articles	1
Videos	16
Internal documents	
Case Study	3

3.2.2.2 Interview Process

Data were collected through semi-structured interviews, providing a high degree of flexibility to pursue emerging topics while ensuring core themes were addressed (Bell et al., 2022). The interview guide (see Appendix 8.4) was intentionally developed to mitigate theoretical terminology and avoid confusion to ensure interviewees could easily relate to the questions and provide meaningful insights. In addition, the interview guide was tailored to each actor's role within the platform ecosystem. This customization enabled the capture of nuanced perspectives across different categories of participants in the music industry (Bell et al., 2022). The interview questions served as a guiding framework, rather than a strict script, allowing unexpected themes to be explored as they emerged throughout the interviews.

Interviews were conducted both in person and virtually via video-call application, facilitating access to interviewees who were geographically distant or otherwise busy. This approach allowed for broader participation and enriched the study with a diversity of perspectives.

Conducting qualitative research via video interviews has been recognized as a viable option and not inherently inferior to traditional physical interviews (Deakin & Wakefield, 2013). However, in recognition of the potential limitations associated with how virtual interview tools might reduce the ability to observe body language, we were observant of such actions. Accordingly, one researcher led the questioning while a second researcher observed non-verbal cues and recorded detailed notes (Bell et al., 2022).

Each interview began with a brief small talk to make the interviewee feel comfortable, benefiting the quality of the responses (Rubin & Rubin, 2011). Participants then received an overview of the study and confirmation of anonymity throughout the study. Oral consent for audio recording was obtained, with assurances that data would be strictly managed with ethical considerations (Bell et al., 2022). Interviews ranged from 30 and 90 minutes, determined by the interviewee's availability and by the relevance and quality of data collected. Sessions were conducted in either Swedish or English, depending on the native language of the interviewee participant, to minimize potential language barriers (Baumgartner, 2012). Following each interview, we wrote down initial reflections individually, thereby establishing a preliminary means of analysis.

3.2.2.3 Data Process

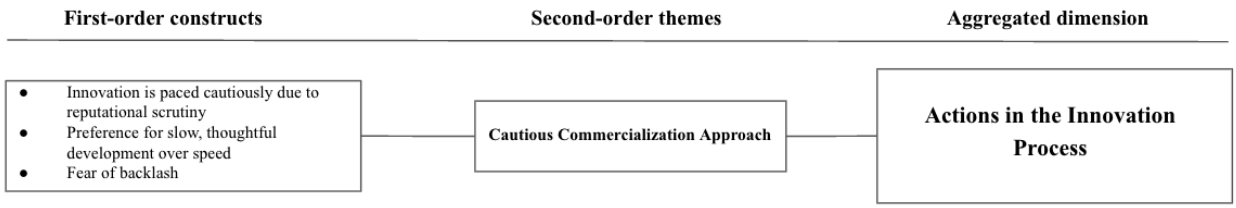
Data analysis proceeded in parallel with data collection, with all interviews transcribed within 48 hours. After transcription, we individually familiarized ourselves with the data, following Gioia's grounded theory approach to enable systematic theory building from empirical data (Gioia et al., 2013; Bell et al., 2022). In line with the grounded theory approach, the use of a three-level data analysis structure was applied (see Appendix 8.6), exemplified in figure 5 (Gioia et al., 2013). Initial impressions informed first-order concept development, using informant-centric terminology to remain as close as possible to participants' descriptions of their institutional environment and connections to the platform ecosystem (Gioia et al., 2013). The data was coded separately, which enabled triangulation of the findings and ensured the study's validity (Denzin, 2012).

Following the creation of first-order constructs, an abductive iteration between emerging empirical insights and existing theory guided the formation of second-order themes. During this stage, categories were compared repeatedly against the three institutional pillars as a sensitizing

lens. Finally, these constructs were distilled into two overarching aggregate dimensions that capture how external pressures and internal actions interact in the case context (Gioia et al., 2013).

Figure 5

Excerpt from Coding Structure



3.3 Ethical and Quality Considerations

3.3.1 Ethical Considerations

Several ethical measures were implemented to ensure the responsible conduct of the study. Before each interview, participants received detailed information about the study's subject and purpose to give their consent to participate, in line with Bell et al. (2022). Moreover, all participants were assured of their right to withdraw at any time and were offered anonymity. Audio recording only commenced after explicit permission was granted. Three interviewees from the case company could not grant permission for direct quotation; although their insights guided the analysis and informed secondary-source review, no quote excerpts from those interviews are presented to comply with ethical standards. In addition, all interview participants' names and genders were anonymized throughout the study in accordance with GDPR requirements.

3.3.2 Quality Considerations

The study's quality was evaluated using the four trustworthiness criteria: credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985). Applying these criteria throughout the research process strengthens the overall quality of the findings.

Firstly, credibility refers to the internal validity, specifically, the degree to which our interpretations and the theoretical ideas developed are aligned with the reality perceived by the participants (Lincoln & Guba, 1985). To enhance credibility, in-depth interviews were complemented with secondary data sources to enable triangulation and cross-verification of findings (Eisenhardt & Graebner, 2007; Bell et al., 2022). The use of a triangulation technique provided a more nuanced understanding of how participants perceive the music industry and developments in AI music tools.

Secondly, transferability pertains to external validity, or the extent to which findings can apply to other contexts (Lincoln & Guba, 1985). Although single-case studies often face criticism for limited transferability (Bell et al., 2022), this concern is addressed through thick descriptions of both Google and the phenomena under examination. By the use of such descriptions, the reader can make a judgment of the study's applicability to other social contexts (Lincoln & Guba, 1985).

Thirdly, dependability refers to the consistency of findings and parallels reliability in quantitative research (Bell et al., 2022). To ensure dependability, we enhanced the traceability and transparency of the study by following an auditing approach (Lincoln & Guba, 1985). Hence, methodological choices were documented, illustrative examples of data interpretation and analysis were provided, and the complete interview guide was provided.

Lastly, confirmability ensures that findings are grounded in data rather than shaped by personal values or theoretical biases (Lincoln & Guba, 1985). Throughout the data collection and interviews, we were aware of a potential social desirability bias, where interview participants might present the firm in an overly favorable manner (Bell et al., 2022). To avoid this and strengthen the confirmability of the study, triangulation between in-depth interviews and secondary sources was used (Lincoln & Guba, 1985). Interpretation bias was mitigated by having each researcher code the data independently before discussing and integrating the findings. Additionally, we made an effort to provide rationales for the theoretical, methodological, and analytical choices to clarify how and why certain choices were made throughout the study.

4. Empirical findings

In this chapter, we present the study's empirical findings. We begin by outlining the context and case company (4.1). Thereafter, we present external pressures influencing ecosystem behavior (4.2), followed by the actions taken by Google in the innovation process (4.3).

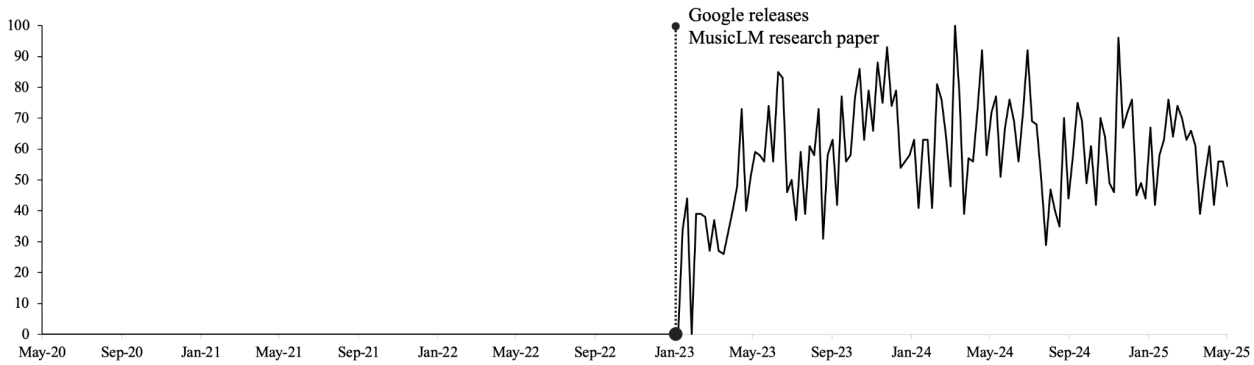
4.1 Case Background

The global music industry consists of interdependent actors, including artists, record labels, distributors, rights societies, and streaming platforms, whose collective interactions shape both the creation and distribution of value in the industry. In 2024, streaming accounted for approximately 69% of total recorded music revenues. Beyond streaming royalties, creators generate income from live performances, mechanical royalties, and merchandising (IFPI, 2024). CISAC (2024) predicts that AI-generated compositions may soon capture a substantial share of streaming revenues, potentially reducing human creators' income up to 24%. Hence, while generative AI enables novel products and services, it also challenges long-standing business models and operational practices (Amankwah-Amoah et al., 2024). Consequently, it has been described as "the biggest technological change for the creative industries over the last 30 years" (GEMA & SACEM, 2024, para. 1).

Advances in AI-based large language models (LLMs), diffusion-based text-to-music systems, and audio-style transfer tools expand creative possibilities from ideation to fully rendered masters at near-zero marginal cost, blurring the boundary between human and machine creativity. In January 2024, Google formalized its entry into the field of AI-generated music with the publication of the MusicLM research paper (Agostinelli, 2023). Concurrently, Google Trends registered a pronounced inflection for the search phrase "generative AI music" (Google, n.d.-b) (see figure 6).

Figure 6

Google Trends Interest Over Time "Generative AI music"



In the course of MusicLM, other entrants rapidly commercialized similar capabilities. For instance, Suno AI produces royalty-free compositions from text prompts, while Udio offers a web‑based prototyping tool tailored to independent musicians (Suno, n.d.; Udio, n.d.). These developments have intensified the discourse surrounding the use of copyrighted material in AI training and the associated implications for rightsholder compensation (Stammer, 2023). Contemporary copyright frameworks in the U.S. and EU offer only partial guidance on text and data mining for model training and fair use (CISAC, 2024). Moreover, in early 2024, major record labels and rights societies initiated litigation against both Suno and Udio, alleging unauthorised use of copyrighted recordings, cases now pending in U.S. and EU courts (Dalugug, 2025).

As an early pioneer in generative audio, Google, together with its subsidiary YouTube, has undertaken a succession of music AI initiatives (See Appendix 8.6 for a comprehensive overview). By functioning both as a distribution platform and a research and development incubator, the Google ecosystem occupies a central position at the intersection of technological innovation and established industry conventions. While the company is committed to a responsible approach to the advancement of generative AI in music (Google, n.d.-a), the critical strategic question remains: how can an incumbent platform orchestrator, like Google, explore the introduction of potentially disruptive innovation while preserving its legitimacy within the platform ecosystem?

4.2 External Pressures Influencing Ecosystem Behavior

4.2.1 Regulatory Ambiguities in Generative AI Use

Interviewees revealed shortcomings in the current regulatory frameworks on the use of generative AI in music and how the fast progress has resulted in both the music industry and legislators having a hard time keeping up.

> *"We [the music industry] are learning as we go. Even the legislators are still figuring this out because everything is so new."* – Label 2

> *"It seems like there is a bit of a grey area when it comes to how copyright works with AI. From what I understand, there are no clear laws on this yet.* – Label 1

Several interviewees raised concerns over how some new entrants have sourced data without consent or any compensation given to the rights holders.

> *"I support AI development as long as you compensate the people who created the material, but for example, Suno is not doing that."* – AI Company 1

> *"I started getting concerned about how new AI companies were acquiring data for generative AI. To me, it felt a bit like the Napster era all over again and like a copyright theft on a massive scale."* – Google 4

A widely cited early turning point was *Heart on My Sleeve,* a viral track that used AI-generated vocals of Drake and the Weeknd. The song's popularity initiated global debates on copyright and ethical boundaries of AI-generated music, before being taken down from platforms on requests from music labels (Coscarelli, 2023, para. 3).

> *"It all happened so quickly. Suddenly, there were these websites where you could fake someone's voice, making them sound like Drake, and then the ability to generate full songs came. People were just shocked that this was possible."* – Producer 1

Interviewees were also concerned about the economic impacts of AI music innovations and emphasized the need for a new licensing framework and regulatory framework to ensure fair compensation.

> *"It is devastating. People will not be able to afford being artists anymore (...) It becomes a matter of cultural preservation."* – Artist 1

This concern is emphasized beyond individual actors. In 2024, over 200 high-profile artists, including Billie Eilish and Stevie Wonder, signed an open letter calling on lawmakers to restrict unlicensed AI training on copyrighted works (Robins-Early, 2024, para. 1). The same year, several top artists released *Silent Side*, an album consisting solely of silence, as a symbolic protest against unauthorized data sourcing in music AI development (Katz, 2025, para.1).

> *"The biggest question right now is the AI training issue. Some major US companies argue that they should be allowed to train their models on any material, copyrighted or not, without permission. The music industry, of course, disagrees. We say: If you want to use our music, create a viable licensing model first."* – AI Company 2

4.2.2 Platform Power and Gatekeeper Dynamics

Several interviewees emphasized that without presence on major platforms like Spotify, YouTube, and Apple Music, artists cannot reach their listeners.

> *"That is where people listen to music, so it is necessary to get exposure."* – Producer 3

Consequently, one A&R explained how labels design their release campaigns primarily to maximize placements and streams on major platforms, effectively centering platform algorithms and well-maintained partnerships as the primary mediators of exposure.

> *"The strategy at its core for an artist is about how we take the music that artists have created and make it reach as many listeners as possible at Spotify, YouTube, and Apple Music."* – A&R 1

One artist emphasized how securing placement on these platforms can also influence an artist's future career trajectory.

> *"If you end up on a good playlist, it can make a huge difference. If you have strong streaming numbers, you have a better opening with record labels."* – Artist 2

Yet, many interviewees described this balance as unfairly distributed, particularly due to dissatisfaction with low streaming revenues, as financial terms and visibility remain governed by opaque, non-negotiable platform rules.

> *"You do make some money from streaming, but it is not a lot. The platforms won the market, so there is not much you can do."* – Artist 3

> *"There is not much negotiation. They [the platforms] can control how much the artist earns from it and what content they want to push themselves. (...) But if you succeed, you suddenly get a whole lot more streams.*" – Artist 4

However, some high-profile artists have managed to push back and put pressure on platforms, as explained by one interviewee:

> *"Taylor Swift left Spotify for a while due to disagreements, but later renegotiated her terms. Adele also influenced the platform by requesting albums not be played on shuffle. It shows that while Spotify holds power, major artists can push back and shape platform behavior."* – Artist 1

Similarly, interviewees also emphasized the dominant role of the major record labels, where their market share contributes to immense power in the industry.

> *"There are the three major labels, which are Sony Music, Universal, and Warner, and they own around 80% of the industry. They have an enormous market share globally."* – AI Company 1

4.2.3 Relational Dependencies and Reputation

Although professional performance is recognized as important, most interviewees emphasized that collaboration in the music industry relies on personal relationships. Thus, partnerships are often established through trust and repeated interactions over time, rather than purely transactional deals.

> *"So much revolves around relationships and building long-term connections. It makes doing business much easier, and the music industry is very much a part of that."* – A&R 1

> *"It is very much about performance, (...) but also about making people feel comfortable and building that kind of trust."* – Songwriter 1

One interviewee mentioned reputation as a vital component of social capital, enabling access to future opportunities.

> *"Your reputation is very important. (...) The basic rule is always that you should not end up being disliked."* – Artist 3

In contrast, a poor reputation was seen as a significant barrier to opportunities and could lead to permanent exclusion, underscoring the industry's low tolerance for controversy.

> *"You often hear about people who have been completely cancelled. And we are talking about people who have written some of the biggest songs ever in Sweden. But then there have been legal cases involving them, and that kind of thing spreads like wildfire. That person has not written a song since."* – Producer 1

4.2.4 Authenticity Norms and Ethical Considerations

Many interviewees regard AI-assisted creation as akin to cheating, fearing damage to their professional reputation in a community where authenticity and prestige are highly valued.

> *There is a bit of shame [using generative AI]. I think perhaps many people do not dare to use it out of pure prestige. (...) I think it feels like cheating, like you have not done it yourself."* – Artist 2

> *"I think people would look down on it [using generative AI]. It is a very small industry, so it is important to have a good reputation. You do not want to get burned, because in an instant, everyone finds out."* – Producer 3

Meanwhile, other interviewees reference past tool controversies, when synthesizers and drum machines were likewise met with initial resistance, to suggest that AI may follow the same path to acceptance once their creative value is demonstrated.

> *"If you look back to the 1980s, everyone thought it was cheating to use synthesizers. Then fast-forward to the 2000s, when people started producing tracks on their computers, and that was also not considered to be real music. It will be interesting to see if AI can follow that same journey."* – AI Company 2

> *"Some people probably think, 'you are not allowed to do that [use generative AI]', but I also think that most people working in music are just like, 'let the best song win.' We just want to try to make the best song possible."* – Songwriter 1

4.2.5 Market Saturation and Erosion of Value

Several interviewees reasoned on both the current and prospective effects of generative AI on the music industry. Interviewees highlighted its potential to democratize creation by lowering technical barriers to music production, writing, and recording.

> *"People who might not see themselves as musicians will become musicians(...). I believe that is where the greatest potential for growth lies." – AI Company 2*

> *"I believe it will become easier for beginners to enter [the music industry](...). I think it [generative AI] will simply do things more streamlined, faster, and easier for people who do not have much technical capability to produce more polished work"– Producer 1*

One producer reasoned that cost efficiency was identified as a key motivator driving the integration of generative AI into music production.

> *"If you can fake everything and have it sound good, you will choose that. There are many specific things that you might have once spent 40,000 [SEK] to record can now be done for 1,000 [SEK]."* – Producer 3

As a result, significantly more people can begin producing and releasing music, leading to an explosive increase in content. Interviewees highlight that this growth is driven both by an increase in the number of creators and improved production efficiency.

> *"It becomes even easier for people to create and release good music [when using generative AI]. I can imagine there will be millions of new songs released every day."* – Songwriter 1

> *"Today, there are two billion music consumers and 20 million music creators. We believe we will go from 20 million creators to 200 million [with the use of generative AI] ."* – AI Company 2

Consequently, such a surplus complicates the process of curation, which can result in listeners becoming overwhelmed by choice.

> *"The big problem is that even before all this [introduction of generative AI], up to 100,000 songs were being uploaded to Spotify each day. Perhaps even more on YouTube. It creates a gigantic surplus of content (...). For the consumer, it becomes more difficult to curate."* – AI Company 1

Another interviewee warned that if AI becomes widely adopted, it may saturate the marketplace, diminishing the perceived value of individual compositions. In circumstances characterized by a substantial increase in supply, the current compensation logic is unable to allocate revenue reasonably.

> *"When more music is released, there are just too many artists in the world, and the supply becomes diluted. (...). So I believe we will need to find a new business model to earn more money from fewer listeners."* – Producer 2

4.2.6 Artistic Connection and Limits to AI

Some expressed the initial concerns regarding the rise of generative AI have become less prominent over time.

> *"At first, everyone was so worried, but I do not believe that it [generative AI] will replace the role of humans, and instead it will perhaps only be used for efficiency reasons and refinements of production"* – Songwriter 2

Several interviewees asserted that the human connection between artists and listeners was described as fundamental and central to commercial success.

> *"We work not only on releasing music but also on selling fandom. Because if 10 or 100 million people love an artist, that will generate sold-out concerts worldwide. It will generate daily streams that pay everyone involved. It is about hyping an artist. And that is something AI will never be able to do.*" – Branding 1

However, several interviewees also recognized that AI might substitute specific market segments where the artistic and emotional side is less central.

> "*There is one segment that I believe will crash quite hard, and it includes everything from TV to rooftop bars or shops. It is the kind of music you do not notice, but that is always there."* – Label 2

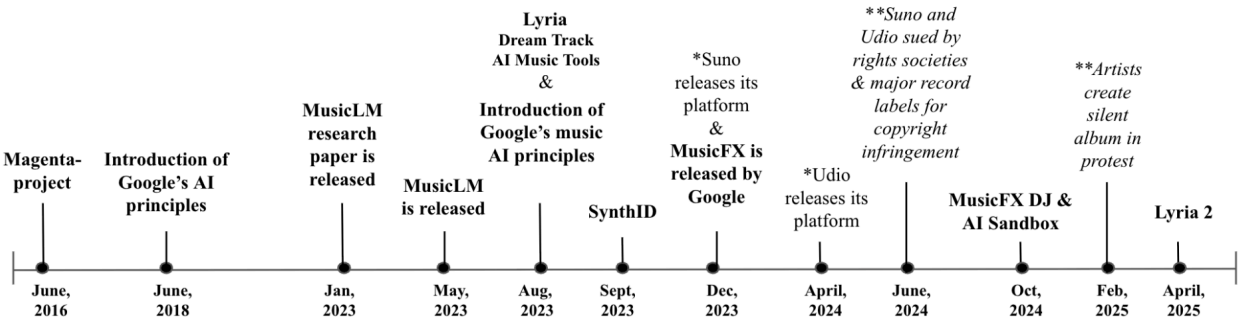
4.3 Actions in the Innovation Process

This section outlines Google's initiatives towards the development and introduction of generative AI into the music industry.

4.3.1 Sequential Innovation Strategy

Figure 7

Google, its Competitors, and the Music Industry's Recent Initiatives within the Music AI field



*Shows actions related to competitors

***Shows actions taken by the music industry*

The development and launch of innovations at Google in the AI music field follows an innovation trajectory (see figure 7) whereby exploratory, open research precedes product engineering and commercialization. In addition to internal research, the company uses open-source models to attract external talent and to encourage problem-solving across ecosystems (Google, 2024). In 2016, the company launched Magenta, fostering collaboration by allowing external talent to contribute (Eck, 2016).

> *"Magenta is an attempt to build a community of artists, coders, and machine learning researchers. The core Magenta team will build open-source infrastructure around TensorFlow [open programming tool] for making art and music."* – Eck (2016, para.3).

Proceeding with its internal innovation processes, informed by both external contributions and in-house research, the company published a research paper in January 2023 (Agostinelli et al., 2023). This paper disseminated the core technological advancements of MusicLM, setting a public benchmark for the research community.

> *"In January, we announced MusicLM [through a research paper], a new experimental AI tool that can turn your text descriptions into music. Starting today, you can sign up to try it in AI Test Kitchen on the web, Android, or iOS. "* – Yim and Manickavasagam (2023, para. 1)

After releasing the research paper, a beta version of the product was released in May 2023 to improve product functionality and academic progress (Yim & Manickavasagam, 2023).

> *The models [MusicGen10 and MusicLM11] should be perceived as a foundation for building more advanced applications. But with the usual transparency of training data, detailed descriptions of the model architectures, and the publicly accessible code, they do promote progress in academia and commercial projects alike.* – Stammer (2023, p. 12)

The controlled environments in which these AI experiments occur allow for a few selected trusted testers to interact with the tool and provide Google with feedback (Cohen & Reid, 2023).

> *"While initially only available to a small group of artists and creators, we look forward to hearing their feedback to inform future products and tools."*– Cohen and Reid, (2023, para. 2)

In 2025, Google released their new music generation model Lyria 2 to a broader audience after testing it on a narrow scope of a few trusted music professionals, allowing them to continue to refine their products before complete commercialization (Lyria team, 2025).

One interviewee explained why this reluctance towards releasing products before ensuring full technological maturity might be important for Google.

> *"They [Google] have to be careful about how aggressive they get because the world will be much less forgiving of Google if they release a bad product."* – Google 4

4.3.2 Co-Creation and Feedback Loops

When discussing its approach to the development of music-generating technologies, Google continuously highlights the importance of doing this together with the industry.

> *"It is critical to develop advanced technologies in collaboration with society. For this reason, starting in 2023, teams from YouTube, Google DeepMind, and Technology & Society have worked together on a program called the YouTube Music AI Incubator*." – YouTube (2024, p. 5)

The company has launched several initiatives through which it collaborates with industry professionals. For instance, the Music AI Incubator serves as a platform for collaboration between Google and the music community.

> *"In a typical incubator session, artists, songwriters, producers, and their teams are invited to explore experimental prototypes from Google."* – YouTube (2024, p. 6)

In these sessions, participants were asked to provide feedback on the tools' creative potential and practical applications (Cohen & Reid, 2023). This was then used to refine the tools' functionality and ensure they meet the needs of artists and the music industry.

> *"Working together, we will better understand how these technologies can be most valuable for artists and fans, how they can enhance creativity, and where we can seek to solve critical issues for the future."* – Mohan (2023, para. 7)

Throughout the AI Incubator sessions, artists could also raise any concerns they might have. When summarizing the key insights drawn from the sessions, Google contends that hearing the music and working with the tools allowed for decreased skepticism and increased acceptance.

> *"While many incubator participants initially doubted AI's ability to help produce music with depth, their opinions shifted after listening to AI-generated music. Initial amazement was followed by emphasis that we need to continue to build with and for the creative community."* – Lane (2024, para. 5)

As a result of the Music AI Incubator, Music AI Sandbox was created, which is a set of experimental tools that can help artists, for example, generate fresh instrumental ideas or craft vocal arrangements.

> *"We created Music AI Sandbox in close collaboration with musicians. Their input guided our development and experiments, resulting in a set of responsibly created tools that are practical, useful, and can open doors to new forms of music creation."* – Lyria Team (2025, para. 6)

Other initiatives include Google Lab Sessions, which convene artists, scientists, academics, and entrepreneurs to investigate AI's possibilities and guide Google's product development (Barrar, 2024). For instance, sessions with Jacob Collier resulted in increasing the level of interactivity, which allows creators to influence the musical output.

> *"His perspective helped inform the team's approach to offering creative control and tools for musical collaboration and artistic innovation."* – Barrar (2024, para. 5)

4.3.3 New Solutions to Amplify Creativity

Google lets their partnerships lead the way and continuously emphasizes how they want their technology to amplify creativity, rather than replace it (YouTube, 2023). Beyond integrating the perspectives of industry stakeholders to inform product development and gain an enhanced understanding of artists' needs (see 4.3.2), the company formulated a set of AI principles specifically tailored to music applications together with one of its key partners, major record label Universal Music Group (Mohan, 2023).

> *"Now, we are working closely with our music partners, including Universal Music Group, to develop an AI framework to help us work toward our common goals. These three fundamental AI principles serve to enhance music's unique creative expression while also protecting music artists and the integrity of their work."* – (Mohan, 2023, para. 3).

Guided by these principles, Google pursues innovations that address potential challenges arising from its music generation technologies. A range of initiatives has been introduced to align with

the AI Principles and mitigate risks such as revenue erosion, unauthorized usage, and loss of creative control (Google, n.d.-a). For instance, Google's DreamTrack initiative represents a novel licensing framework in which Google collaborates directly with nine participating artists to grant explicit permission for the use of their vocal likenesses in AI-generated soundtracks for YouTube Shorts (Cohen & Reid, 2023). By integrating these approved voices into a carousel selection tool, DreamTrack opens new avenues for artist revenue generation while fostering deeper fan engagement through co-creative experiences.

> *"Being a part of YouTube's Dream Track experiment is an opportunity to help shape possibilities for the future."* – John Legend (2023, para. 8)

Moreover, rights management technology Content ID ensures rights holders get paid for use of their content by identifying matches of copyright-protected content (YouTube, n.d.). However, as AI development proceeds, the technology faces new challenges:

> *"The limitless potential of generative AI demands a thoughtful approach that maps to the expansive boundaries of creative expression. Generative AI systems may amplify current challenges like trademark and copyright abuse, misinformation, spam, and more."* – (Mohan, 2023, para. 11)

To address parts of such challenges, Google explores future models for creative attribution. Such innovations include SynthID, a technology allowing users to identify the origin of AI-generated audio content by adding a watermark that is inaudible to the human ear (Stammer, 2023, p. 16). Other features include mandatory disclosure checkboxes that require creators to label content as AI-generated, where non-compliance may result in suspension from the YouTube Partner Program (YouTube, 2024). Meanwhile, MusicFX and MusicFX DJ prevent a generation of any query that includes vocals or references specific artists to safeguard artist voices and styles (Google Labs, n.d.).

4.3.4 Cautious Commercialization Approach

Google has long led foundational AI research but often trails other companies in turning those breakthroughs into commercial products. One interviewee reflected on Google's innovation pace:

> *"All of the existing boom in AI can be traced back to a single scientific paper, which was written at Google called All You Need Is Attention. The point is, the technology was created at Google, but it was not first commercialized at Google. (...) Google is cutting edge on research, (...) What it has maybe been a bit slower at is commercializing that technology."* – Google 4

Demis Hassabis, CEO of Deepmind, reflected in an interview on how Google and Deepmind deliberately extended their development timelines, rather than releasing something that could potentially cause damage (Perrigo, 2023). This conservative approach stems partly from a wish to approach things responsibly.

> *"I would advocate not moving fast and breaking things, he says [CEO of Deepmind], referring to an old Facebook [Meta] motto that encouraged engineers to release their technologies into the world first and fix any problems that arose later."* – Perrigo (2023, para. 6)

In practice, that means Google often pauses where other companies sprint, choosing impactful advances over speed. One interviewee reflected on how Google is under much more scrutiny and how its reputation affects its approach.

> *"I think they can less afford to take risks than other companies because they are seen to be the grown-ups, right?"* – Google 4

5. Analysis

The following section analyzes the empirical findings in light of the conceptual framework. The chapter begins by examining the external institutional pressures (5.1), followed by the internal strategic actions and imperatives (5.2) and individual-level legitimacy characteristics identified through analysis (5.3). Finally, we present our conclusions (5.4).

5.1 External Institutional Pressures

This section defines the boundaries of legitimate behaviour with respect to the institutional pillars, thereby providing an analytical lens for the subsequent section.

5.1.1 Regulative Pillar

Rapid advancements in generative AI have outpaced the adaptation of legislation in the music industry, resulting in an "legislative grey area" regarding data training and voice cloning in song generation (4.2.1) This legal ambiguity has created a gap in the market which enables actors to experiment without fear of legal sanction (Maguire et al., 2004; Mair & Martí, 2009). However, as regulatory constraints are undefined yet emerging, the lack of explicit legal guidance does not reduce constraints; it shifts them to a probabilistic and reputational domain. For an incumbent orchestrator, the open legal field consequently creates both strategic opportunity and risk, as it invites for entrepreneurial experimentation but also forces them to set their limits to avoid harsh regulations later on.

5.1.2 Normative Pillar

In the music industry, normative pressures are especially strong in three areas. First, broader social expectations emphasizing that creators should be acknowledged and remunerated for the use of their copyrighted work are reflected in ethical concerns regarding perceived fairness (4.2.1). Consequently, these expectations are strongly felt and thus highly institutionalized, thereby heavily shaping organizational decisions.

Second, many traditional artists perceive generative AI-assisted creativity as undermining professional standards and artistic authenticity, and fear for their professional reputation if used (4.2.4). Thus, even in absence of formal sanctions, actors fear social disapproval and exclusion. Consequently, authenticity and artistic integrity constitute highly institutionalized central normative elements. Third, the music industry is mainly characterized by relational dependencies, where trust and reputation are central to collaboration and long-term success. This indicates how there are deeply institutionalized norms regarding credibility and relational dependency, which makes actors sensitive to any behavior that might be perceived as a legitimacy breach (4.2.3).

5.1.3 Cultural-Cognitive Pillar

There were several deeply embedded schemas that appeared to inform behaviour. Relational interdependencies and social capital constitute a core cognitive assumption that personal networks are regarded as equally important to technical competence, and professional reputation operates as a form of social currency (4.2.3). Likewise, the conviction that genuine artistic expression depends on human connection reinforces the taken-for-granted assumption that fandom and "hype" cannot be automated (4.2.6). This reflects a persistent cognitive bias towards the irreplaceability of artist‑fan bond.

Another cognitive schema relates to the role of dominant streaming platforms. Over the past decade, complementors have internalized how major streaming platforms are obligatory gateways to audiences. Despite recurring dissatisfaction with revenue-sharing models between complementors and platforms, there is a shared understanding among most participants that compliance with platform regulations is non-negotiable (4.2.2). However, these interpretations are not static and can be subject to reinterpretation through social interaction and contextual adaptation. For instance, while the use of generative AI was initially not given, recent product launches and mainstream integration have made the music industry gradually perceive its existence as part of their mental models (4.2.6).

5.1.4 Summary of Pillar Strengths

For an incumbent orchestrator like Google, the institutional environment (summarized in table 4) creates both opportunities and constraints. As such, for Google to be seen as a legitimate actor when innovating, field characteristics need to be taken into consideration. The absence of clear regulation affords opportunities for innovation. In contrast, the strong normative pillar and medium cognitive pillar both constrain and guide the forms in which innovation can be perceived as legitimate (Battilana et al., 2009).

Table 4

Platform Ecosystem's Institutional Environment

Institutional Pillar	***Field characteristics***	***Key Characteristics***	***Exemplary Quote***	***Deployed by***
Regulative	Low	The legal framework is undefined regarding the use of AI and training on copyrighted data	"*It seems like there is a bit of a grey area when it comes to how copyright works with AI. From what I understand, there are no clear laws on this yet.* – Label 1	Google 4, Label 2, Producer 1, Producer 2, Artist 1, AI Company 1 & AI Company 2
Normative	High	Moral expectations around authenticity and ethical considerations regarding data training	"*Your reputation is very important. (...) The basic rule is always that you should not end up being disliked."* – Artist 3	Google 4, Label 1, A&R 1, Artist 2, Artist 4, Producer 1, Producer 3, Songwriter 1, AI Company 1, & AI Company 2
Cultural-Cognitive	Medium	Deeply held beliefs about human creativity and platform dependency	*"At first, everyone was so worried, but I do not believe that it [generative AI] will replace the role of humans, and instead it will perhaps only be used for efficiency reasons and refinements of production"* – Songwriter 2	A&R 1, Branding 1, Producer 3, Artist 1, Artist 2, Songwriter 1, Artist 3 & AI Company 2

5.2 Internal Strategic Actions and Imperatives

The next section explores how Google has shaped and been shaped by the institutional environment as they developed and introduced generative AI efforts in the music industry.

5.2.1 Outsourcing Entrepreneurship

Google's approach to introducing generative-AI music technologies can be understood as a form of *indirect institutional entrepreneurship* that deliberately stages boundary-pushing experiments without exposing the firm to reputational risk. It was observed that Google navigated the strong normative context in which stakeholders demand adherence to established norms of artistic integrity. Rather than pursuing full commercialization of a complete generative AI product directly to the market, risking breaches of normative beliefs about the unethical and inauthentic nature of generative AI, Google adopted a sequential innovation strategy comprising academic publication, open-source release, and controlled beta testing (4.3.1 & 4.3.4).

Initially, Google disseminated research papers that detail model architectures and training data, positioning its efforts as a scholarly contribution rather than an invasion of the market. Subsequent open-source publication at Magenta and controlled roll-out of beta testing further invited the broader research community and entrepreneurial start-ups to experiment and build derivative projects. By adopting this approach, Google effectively transferred the responsibility for market experimentation to new entrants, thereby allowing them to bear the reputational risks and normative scrutiny typically associated with early product launches. In practice, this diffusion normalized AI-generated music and expanded what industry actors considered taken-for-granted, consequently moving the cultural-cognitive boundary toward acceptance.

Collectively, these stages illustrate a legitimacy-outsourcing mechanism in which Google orchestrates cultural-cognitive change by providing foundational resources that encourage others to undertake the riskiest boundary-stretching. As competitors pushed generative-AI music into commercial applications, they absorbed the initial normative backlash, effectively softening resistance across the field and creating new shared understandings of the new environment. Once the practice of AI-assisted music became more common, Google gained broader scope within which it could introduce its commercial offerings without being perceived as illegitimate.

This strategy highlights an important nuance in institutional entrepreneurship. Namely, incumbents may delegate destabilizing acts to peripheral actors, thereby reshaping field-level cognitive scripts indirectly. By deliberately letting others incrementally shift what is cognitively taken-for-granted and perceived as natural by the ecosystem, Google could initiate beneficial change of the norms and perceptions within the ecosystem, while staying within the accepted boundaries of legitimacy itself.

5.2.2 Co-Creating New Norms and Cultural Cognitive Structures

The normative pillar within the music ecosystem exerts a powerful influence on perceptions of legitimacy. Meanwhile, the more moderate cultural cognitive structures were open to change for higher technological acceptance among stakeholders. Consequently, the successful introduction of new potentially disruptive innovation is contingent upon the reshaping of normative expectations while building on existing cognitive schemas.

Google leveraged its central ecosystem position and extensive network ties by inviting artists, songwriters, producers, and industry professionals to participate in the YouTube Music AI Incubator. By interactively incorporating creators' feedback, Google ensured that its AI tools evolved in direct response to the needs and preferences of the people who would use them. For instance, when artists expressed a desire for greater manual control, Google introduced enhanced interactive features, thereby affording users increased opportunities to edit AI output (4.3.2). Thus, rather than seeking to substitute the existing cultural cognitive pillar, they modified the innovation to align with these structures. This suggests a respect for the established mental models of perceived tool usefulness, rather than an attempt to overrule them.

Furthermore, by establishing collaborative partnerships with pioneering artists, Google facilitated opportunities for creators to engage with its tools. The findings indicated that these hands-on sessions led to a transformation in the participants' mental models of what AI can achieve (4.3.2), therefore gradually affecting the shared cognitive assumptions about AI's role in music creation. By co-creating with esteemed artists, Google *harnesses their reputational capital* to challenge the status quo and gain support from those who are skeptical at first (Battilana et al., 2009). By lowering creators' guard against perceived tool usefulness and also building support from trusted allies found in the well-reputed set of artistes they teamed up with, the incubator

program allowed Google to mitigate the normative reluctance among professional creators towards integrating generative AI into creative processes, something which previously was seen as inauthentic (Maguire et al., 2004).

Conducting the incubator program informed the ecosystem that the innovation was part of a continuous ethos of collective progress, thereby reinforcing Google's vision of using generative AI to amplify creativity rather than replace it (Battilana et al., 2009). Each iteration challenged expectations of acceptable AI use, then normalized it via co-creative interactions. Over time, the perceived legitimacy of AI-assisted music production could be reshaped. In essence, Google's approach of involving those affected by the innovation in the development process facilitates a shift in their understanding of the implications of using AI in music creation. Hence, changing perceptions of the innovation's legitimacy.

5.2.3 Proactive Governance to Clarify Legitimate Innovation Boundaries

The regulative constraints surrounding AI in music were undefined, leading to new entrants exploiting the absence of a legal framework and experimenting aggressively (4.2.1). However, due to a strong normative pillar, Google adopted a more cautious approach driven by concerns over potential reputational damage. In this sense, the absence of explicit legal guidance did not reduce constraints but instead blurred the boundaries of acceptable behavior.

To address the regulative ambiguity and the rules of legally correct behavior, Google introduced several initiatives that made governance rules for the platform more explicit, ultimately filling the regulative void present in its context (Lusch & Nambisan, 2015). Examples include leveraging its social position by partnering with Universal Music Group to formulate the AI Music Principles that serve to guide appropriate behavior. Additionally, Google implemented mandatory disclosure checkboxes for AI-generated content, where non-compliance could result in suspension from the YouTube Partner Program (4.3.3). Moreover, through the Music AI Incubator, Google leveraged tacit governance to instill their vision to the music industry of how AI is here, but that Google will aim for AI to amplify creativity and not replace it. This process not only helped Google to reduce participants' skepticism but also contributed to the co-creation of shared norms and mental models, thus functioning to ensure continuous commitment to the platform (Goldbach & Kemper, 2014).

5.2.4 Potential Ecosystem Outcomes Influence Perceptions of Legitimacy

At present, complementors remain sufficiently incentivized to remain on streaming platforms despite modest direct revenues, as the platform provides substantial audience reach (4.2.2). Nevertheless, depending exclusively on contemporary attitudes may lead to future disengagement if the perceived benefits diminish (Isckia et al., 2020).

To guard against such a decline, the orchestrator must continually monitor *potential ecosystem outcomes* and their impact on partnerships and their value-creation opportunities, since any shift toward revenue dilution or displacement of creative roles could threaten partner motivation. Two potential scenarios emerged from the empirical analysis (4.2.5). First, the increased prevalence of AI-generated songs could potentially diminish the value of creative works, as a saturated market might lead to a decline in individual streaming revenue and therefore a reduction in the ability of artists to monetize their creations. Second, core aspects of the traditional craft of music creation could be supplanted by fully generative AI, driven by cost-efficiency arguments. Should either or both of these scenarios materialize, complementors would likely attribute lost revenues or diminished creative roles to Google's innovation leadership, thus perceiving the firm as responsible for their obsolescence. Because the music industry judges the acceptability of innovation in light of its impact on established actors, such perceptions would erode Google's legitimacy.

Accordingly, potential ecosystem outcomes constitute an external pressure that shapes future legitimacy judgments imposed by the platform complementors and thus current innovation decisions taken by Google. If left unaddressed, outcomes unpreferred by established complementors could shift industry norms regarding what constitutes legitimate platform behaviour. To address this concern, Google has introduced new models of monetization and technical safeguards intended to sustain partner value creation. For instance, the DreamTrack initiative employs an innovative licensing framework wherein artists grant voice likeness rights to generative-AI models in exchange for revenue participation. Concurrently, the restricted prompting mechanisms present in MusicFX DJ, for instance, preserve the integrity of the creator and safeguard the human dimension of music production (4.3.3). By implementing these mechanisms, Google actively reshapes potential ecosystem outcomes, thereby preserving partner motivation and securing its legitimacy as an ecosystem orchestrator.

5.3 Individual-Level Legitimacy Characteristics

Beyond the field-level pressures, two individual characteristics were identified as modulating how institutional pillars influence perceptions of legitimacy directed toward the focal organization.

5.3.1 Power Position

Despite prevailing normative expectations of fairness, trust, and reputation management, the music industry platforms were observed to employ revenue-sharing practices considered inequitable by many music professionals (4.2.2). This is because these complementors depend extensively on major streaming platforms, like YouTube, for content distribution and audience access, which makes presence on the platform obligatory and sustained, regardless of the revenue split. This dependency creates an asymmetric power relationship in which Google can, in effect, dictate terms unilaterally. Because of the dependency relationship between YouTube and the music industry, Google can act illegitimately, yet still get support from its ecosystem. In essence, their dominant *power position* shields them from the full force of normative sanctions, thereby effectively filtering and mitigating industry actors' collective sense of illegitimacy.

However, the platform's dominance depends on the relative power of the complementor. To exemplify, highly influential artists such as Taylor Swift and Adele challenged Spotify, leading to a change in design and policy (4.2.2). Hence, when artists possess sufficient cultural and commercial capital, this power balance shifts. Thus, even a dominant orchestrator must adapt their governance and selectively accommodate partner demands, especially when those partners are essential to attracting users and sustaining ecosystem vitality (Gawer, 2021).

5.3.2 Performance Pressure

Google's previous accomplishments and extensive integration within the industry have set a high standard for what is considered acceptable. Consequently, any technical or ethical misstep would not only influence the perception of the launched product, but of the entire company. In contrast, while new entrants may benefit from a tolerance for experimental error, Google is held to a higher standard of performance, which they must meet to preserve their reputation (King &

Whetten, 2008). The differential tolerance for error effectively broadens the zone of illegitimacy for the firm, leaving less room for experimentation or visible failure. To address this enlarged zone of illegitimacy, Google employs an incremental, tightly curated launch process. New products are initially evaluated through a trial phase with a select group of trusted testers and subsequently released in successive versions (e.g., Lyria 1, then Lyria 2). Each iteration then incorporates stakeholder feedback before full commercialisation of the product (4.3.1). This staged rollout enables the firm to validate performance discreetly to ensure that those products meet, or exceed, the ecosystem's expectations, shaped by the platform's prior achievements.

Collectively, Google's characteristics and previous achievements affect the level of performance the individual organization is expected to have. As a result, this expectation will affect how legitimate its actions will be perceived. The resulting *performance pressure* is thus an individual-level organization-specific constraint rooted in accumulated reputation which shapes the organization's decisions on innovation even when broader regulative, normative, or cultural-cognitive constraints might permit a bolder pace of innovation.

Table 5

Google's Individual Level Legitimacy Characteristics

Individual-level legitimacy characteristics	***Field characteristics***	***Key Characteristics***	***Exemplary Quote***	***Deployed by***
Power Position	High	Power dependency allows an actor to set the terms of collaboration, effectively mitigating industry actors' collective sense of illegitimacy.	"*You do make some money from streaming, but it is not a lot. The platforms won the market, so there is not much you can do."* – Artist 3	Label 2, A&R 1, Branding 1,Producer 1,Producer 2, Artist 1, Artist 2, Artist 4
Performance Pressure	High	Established firms face heightened scrutiny and must manage legitimacy through caution and reputation-sensitive innovation strategies.	"*I think they [Google] can less afford to take risks than other companies because they are seen to be the grown-ups, right?"* – Google 4	Label 1, Producer 1, Producer 3, Artist 1, Artist 3, AI Company 1, AI Company 2

5.4 Conclusion

The purpose of this study was to increase understanding of how incumbent platform orchestrators navigate external environmental pressures with internal strategic imperatives to introduce and integrate potentially disruptive technologies without undermining their ecosystem legitimacy. Consequently, the research question guiding this study was formulated as follows:

"*How can an incumbent platform orchestrator explore the introduction of a potentially disruptive innovation while preserving its legitimacy within the platform ecosystem?*"

The findings reveal several key strategies and mechanisms that can be utilized by incumbent platform orchestrators to navigate the complex balance of innovation exploration and legitimacy preservation within their ecosystem.

Firstly, incumbent platform orchestrators can leverage *indirect institutional entrepreneurship* by delegating the most norm-challenging stages of innovation to peripheral actors. By enabling others to take the lead in early experimentation, the platform orchestrator externalizes the initial reputational risks and normative backlash, thereby avoiding direct association with controversial practices. Once novel practices have been normalized and cultural-cognitive boundaries have shifted, the platform orchestrator can then re-engage under more favorable conditions and introduce the innovation to its network. By pacing its involvement in this way, the incumbent platform orchestrator both shapes and learns from evolving norms, progressively recalibrating ecosystem boundaries of acceptability while maintaining legitimacy.

Furthermore, incumbent platform orchestrators can take advantage of contexts where institutional pillars are weakly defined and reconfigure these to align with their strategic interests. By utilizing its social position within the ecosystem to create strategic partnerships with influential complementors, this not only strengthens ecosystem trust and shared direction, but also enables the *leverage of complementors' reputational capital* to facilitate a gradual reshaping of cognitive schemas and norms across the ecosystem. Further, due to their reputational capital, these partners also possess a degree of power over the platform orchestrator. Consequently, it is strategically important for the platform that these complementors accept the actions of the

orchestrator, as this not only secures their continued contribution but also helps mobilize other actors, creating positive network effects.

Legitimacy is also influenced by the *potential ecosystem outcomes* that innovation entails. Established actors often evaluate an innovation by its potential impact on their value creation opportunities and changes to ecosystem constellations. As a result, even innovations that never provoke formal institutional conflict can lose legitimacy if they threaten such incentives. Platform orchestrators must therefore assess how any innovation will reshape potential ecosystem outcomes and introduce mechanisms that help mitigate negative impacts to reinforce complementor motivation. Consequently, orchestrators can influence the complementor's perception of innovation legitimacy, thereby sustaining ecosystem participation and reducing the risk of perceived harm.

Across these areas, it becomes evident that legitimacy is not preserved by avoiding change. Instead, it is maintained by curating the process of change. Thus, it requires the incumbent platform orchestrator to be deeply attuned to the ecosystem dynamics, willing to collaborate, and to be able to adapt its strategy to meet changing expectations. Importantly, legitimacy is not a static attribute but a dynamic construct shaped by interactions, perceptions, and collective meaning-making.

Moreover, the findings suggest that the relative influence of institutional pressures is modulated by *individual characteristics*. Firstly, a platform's *power position* refers to the degree of dominance it holds in an ecosystem based on the dependency relationships between itself and other participants. Accordingly, actors with dominant power positions can act in illegitimate ways, yet still get support from its complementors. However, this dominance is contingent on the relative power of individual complementors. Secondly, organizations with established reputations are subject to *performance pressure*, where the perceived legitimacy of an actor's actions is informed by the expectations held by the platform ecosystem and evaluated differently depending on the actor's past performances and relational ties. As a result, performance pressure acts as an individual-level organization-specific constraint that shapes how an incumbent platform orchestrator can act to be perceived as legitimate. The enlarged zone of illegitimacy can

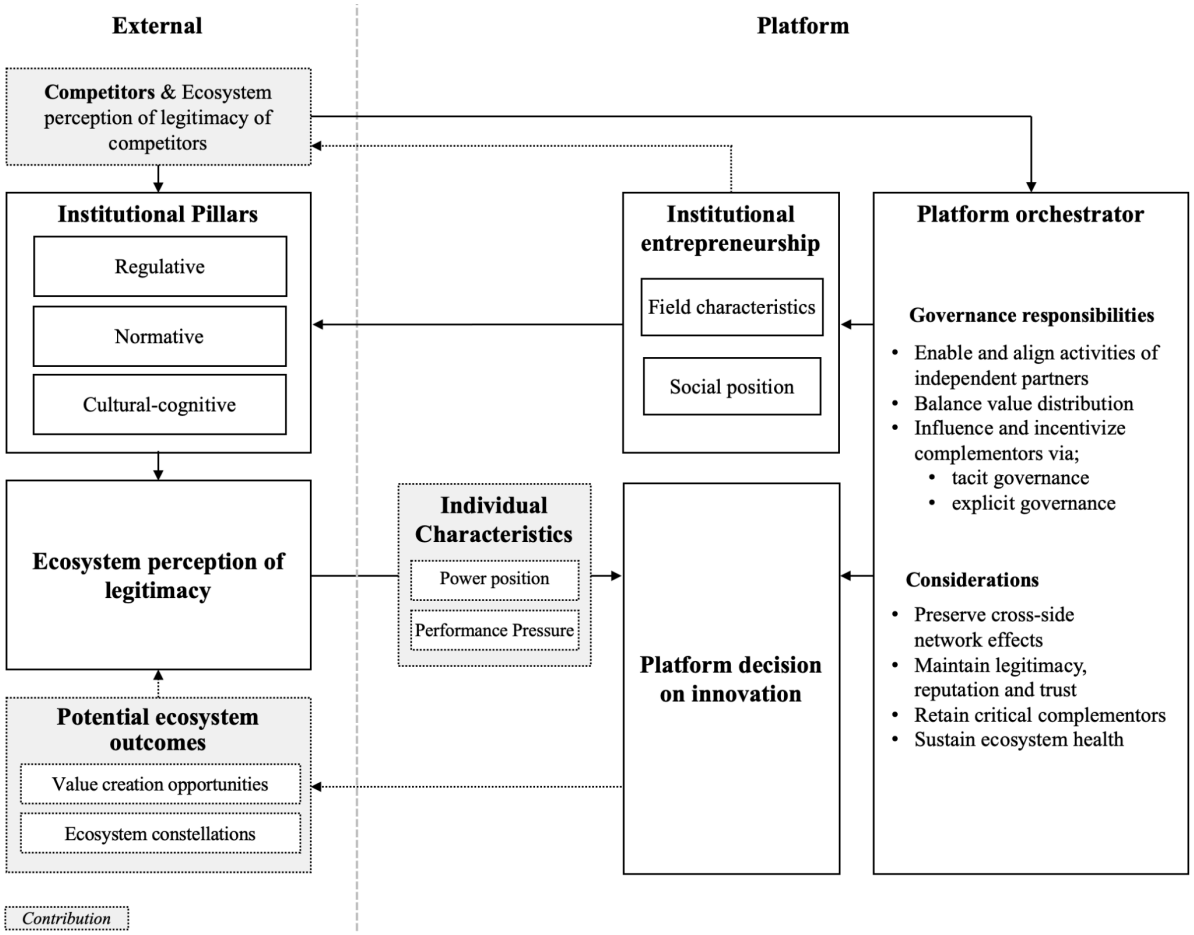
be navigated by incremental launch releases and feedback incorporation enabled through trusted tester phases.

Taken together, incumbent platform orchestrators can strategically explore the introduction of potentially disruptive innovation without undermining their ecosystem legitimacy by combining external sensitivity with internal strategic coherence. By outsourcing early-stage risk, co-creating legitimacy with complementors, leveraging complementors' reputational capital, and anticipating potential ecosystem outcomes, orchestrators can expand the boundaries of what is seen as legitimate, without alienating the very ecosystem they depend on.

An updated conceptual framework integrating the empirical findings is presented in figure 8. The framework illustrates how external institutional pressures, individual characteristics, and potential ecosystem outcomes collectively inform platform orchestrators' strategic actions. It highlights the dual role of the orchestrator as both a subject to institutional constraints and an agent capable of influencing ecosystem norms and beliefs through both direct and indirect institutional entrepreneurship.

Figure 8

Updated Conceptual Framework



6. Discussion

6.1 Theoretical Contributions

This study contributes to existing literature on disruptive innovation by integrating two distinct yet interconnected literature streams – institutional theory and platform ecosystems. Consequently, this contributes to the identified research gap in several ways.

Firstly, it extends the discourse on disruptive innovation by shifting the analytical focus from new entrants challenging incumbents to incumbent-led disruption within platform ecosystems (Christensen, 1997; Christensen & Raynor, 2003). Specifically, this study offers new insights into how incumbents manage the dilemma of innovation-driven growth and legitimacy preservation within their ecosystem. Further, this study makes an explanatory theoretical contribution by integrating institutional theory and ecosystem theory. Institutional theory typically explains how organizations are influenced by their external environment but overlooks the impact of the relational dynamics and individual actor positions within ecosystems. This research bridges this gap by explicitly incorporating the role of relationships, ecosystem position, and organizational expectations into explanations of institutional influence, thus advancing a more comprehensive theoretical integration. Moreover, the findings extend institutional entrepreneurship theory by identifying the novel mechanism of outsourcing entrepreneurship. Prior studies predominantly emphasize direct strategies for institutional change (Battilana et al., 2009; Maguire et al., 2004). In contrast, this study introduces and elaborates on indirect entrepreneurial strategies, showing how incumbents can initiate industry-wide institutional changes while insulating themselves from potential legitimacy erosion. Additionally, the identification of how potential ecosystem outcomes influence on the perceptions of legitimacy presents a new theoretical contribution not identified in previous literature on institutional theory. This study emphasizes the anticipatory dimension of legitimacy, highlighting that actors proactively shape legitimacy perceptions based on future potential ecosystem outcomes. Thus, it highlights legitimacy not merely as a reactive, but as a proactive strategic consideration. Finally, this thesis enriches institutional theory by detailing how organization-specific characteristics modulate institutional pressures. Specifically, it demonstrates that the relative strength of Scott's

(2013) institutional pillars is contingent upon individual-level characteristics operating alongside, yet independently of the institutional pressures.

6.2 Practical Implications

Practically, this study provides valuable insights for incumbent platform orchestrators in managing innovation processes amid complex institutional environments. Firstly, it underscores the strategic advantage of adopting a staged and incremental innovation strategy. By outsourcing early experimentation to peripheral actors, incumbents can effectively mitigate early-stage legitimacy risks and normative backlash while still advancing innovation. Practitioners can use this approach by carefully managing initial exposure to controversial innovations, thereby gradually expanding acceptance and market readiness. Additionally, the research emphasizes the importance of proactive co-creation and collaborative engagement with ecosystem stakeholders. By actively involving key complementors, incumbents can directly influence perceptions and attitudes toward innovation. Practitioners should leverage these collaborative frameworks not only to refine product offerings but also to build legitimacy capital, thus ensuring smoother integration of disruptive innovation into established ecosystems. Finally, incumbents must continuously monitor potential ecosystem outcomes and proactively implement mechanisms that reshape ecosystem outcomes in a way that preserves partner motivation. In sum, disruptive innovation within platform ecosystems is less about breakthrough innovation alone and more about curating its integration. Success hinges on managing perceptions, sequencing involvement, and fostering legitimacy collaboratively rather than unilaterally.

6.3 Limitations of the Study

This study presents several limitations that must be acknowledged, each of which offers meaningful avenues for future research. Firstly, the research adopted a single-case study approach focused exclusively on a single organization and its initiatives in the case-specific industry. While this methodological choice enabled an in-depth exploration of the mechanisms underlying incumbent-led disruptive innovation and legitimacy management, it inevitably limits the generalizability of the findings. This, as the dynamics observed are closely tied to the specific institutional and technological contexts of the specific case. Secondly, the reliance on qualitative

data, primarily derived from semi-structured interviews and secondary sources, introduces potential biases related to participants' retrospective accounts and subjective interpretations. Interviewees might selectively emphasize or omit details based on perceived social desirability or memory biases.

6.4 Future Research Directions

The limitations outlined above offer constructive pathways for future investigations aimed at broadening and deepening the theoretical and empirical understanding of disruptive innovation and legitimacy management within complex platform ecosystems.

Future research could beneficially test the conceptual framework in other industries or organizational contexts, examining how different institutional environments shape legitimacy strategies for platform orchestrators introducing potentially disruptive innovations. Such studies would help assess the robustness and transferability of the identified legitimacy management strategies identified in this thesis. To mitigate concerns of subjectivity inherent in qualitative data, future studies could incorporate quantitative methodologies or longitudinal designs, thereby providing a more objective measurement of how legitimacy perceptions evolve over time in response to disruptive innovations.

Additionally, this study surfaced compelling dynamics of power between platform orchestrators and their complementors, particularly through the finding on power position. While many actors remain dependent on the orchestrator, the research revealed that some complementors possess sufficient cultural or commercial capital to resist or reshape innovation trajectories. These dynamics resonate with the concept of institutional defenders, defined as powerful actors who benefit from the status quo and resist change when their interests are threatened (Levy & Scully, 2007). Future research could build on this by examining the underlying power dynamics between institutional defenders and orchestrators in greater depth, exploring how their relative influence and interactions shapes the direction of innovation, especially in contested fields where both sides hold leverage.

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8. Appendix

8.1 Overview of Platform Orchestrator

Platform Orchestrator

Governance Responsibilities	***Key Idea***	***Highlighted by***
Enable and align activities of independent partners	Help different partners work together smoothly, even though they are not part of the same company.	Adapted by Jacobides et al. (2018); Mukhopadhyay & Bouwman (2019); Eaton et al. (2015)
Balance value distribution	Make sure value is shared fairly so all partners stay motivated and committed.	Adapted by Isckia et al. (2020); Gawer & Cusumano (2002); Parker et al. (2016)
Influence and incentivize complementors via tacit governance	Use shared values, trust, and mutual understanding to keep partners aligned without strict rules.	Adapted by Lusch & Nambisan (2015); Mukhopadhyay et al. (2016); Goldbach & Kemper (2014); Goldbach et al. (2017); Nambisan & Sawhney (2011); Tiwana et al. (2010)
Influence and incentivize complementors via explicit governance	Use clear rules, agreements, and incentives to guide how partners behave and collaborate.	Adapted by Lusch & Nambisan (2015); Nambisan & Sawhney (2011); Tiwana et al. (2010)
Considerations	***Key Idea***	***Highlighted by***
Preserve cross-side network effects	The platform becomes more valuable when more users and partners join. If too many leave, the whole system can fail.	Adapted by Evans & Schmalensee (2008); Gawer (2014, 2021); McIntyre & Srinivasan (2017); Lee et al. (2015)
Maintain reputation and trust	Make sure that what the platform does is seen as fair, legitimate, and trustworthy by partners and the public.	Adapted by Lusch & Nambisan (2015); Scott (1995); Goldbach & Kemper (2014); Mukhopadhyay et al. (2016)
Retain critical complementors	Keep key stakeholders motivated to stay and contribute to the platform.	Adapted by Mukhopadhyay & Bouwman (2019); Isckia et al. (2020); Parker et al. (2016); Gawer & Cusumano (2002)
Sustain ecosystem health	Keep the whole system strong by supporting all key actors so the platform continues to grow and function well.	Adapted by Iansiti & Levien (2004a); Gawer & Cusumano (2002); Parker et al. (2016); Isckia et al. (2020)

8.2 Overview of Institutional Pillars

Pillar	Definition	Key Mechanisms	Basis of Legitimacy	Analytical Focus
Regulative	Rules, laws, and sanctions enforced by formal authority that prescribe the exact behavior expected of actors	*Coercion, compliance, monitoring* When an organization adjust its behavior to avoid penalties or to capture rewards, this is a direct sign of the regulative logic at work	Legitimacy in this mode is achieved by legal sanction and conformity to established regulations	How laws, regulations, and policy shape the company's choices
Normative	Shared values, norms, moral imperatives and social expectations about what is considered appropriate that guides behavior	*Obligation, social approval, role expectations* Pressure from normative systems is manifested in the widespread expectations about how organizations should behave within an organizational field • Formalized expectations, e.g., professional codes or institutionalized roles • Informal pressures e.g., social norms that emerge through everyday interaction	Legitimacy is achieved by compliance to moral and ethical expectations recognized by a community	How industry standards, professional norms, or stakeholder expectations affect decision-making
Cultural-Cognitive	Taken-for-granted assumptions and shared understandings that shape how organizations perceive and act in their environment	*Mimicry, taken-for-granted beliefs, habits* An organization operating under cultural-cognitive pressures when it adopts a particular identity or structure because it is widely recognized and accepted	Legitimacy comes from cultural support as institutional actions are seen as fitting with prevailing cognitive schemas and shared worldviews	How the company's actions are influenced by culturally embedded beliefs or routines

Sources: Scott (1995; 2001; 2008; 2013)

8.3 Interview Guide: Preparatory Study

The interview guide was adjusted accordingly if the interviewee was an employee at Google or in the music industry, and was used as a basis for discussion.

Topic	Question
Background Information	● What is your current role [within the music industry/at Google]? ● How long have you been working [within the music industry/at Google]?
The Music Industry in General	● How do you typically interact with other stakeholders in the industry, e.g., platforms, labels, and artists? ● How would you describe the current relationship between artists and streaming platforms? ● How would you describe the biggest changes in the music industry over the past 5–10 years? ○ What do you think has affected these changes? ○ Have those changes also affected what is considered acceptable or standard practice in the industry? ● What do you see as the most important challenges for creators today?
AI within the Music Industry	● How is AI currently discussed in the industry? ● What are your thoughts on the creative use of AI in music production or distribution?

8.4 Interview Guides: Main Study

The interview guide was adapted and updated continuously depending on the role of the interviewee.

8.4.1 External

Topic	Question
Background Information	● What is your current role within the music industry? ● How long have you been working within the music industry?
The Music Industry in General	● How do you typically interact with other stakeholders in the industry, e.g., platforms, labels, and artists? ● When you decide where to release or promote music, what matters most? ● Which online platforms do you currently rely on most (e.g., YouTube, Spotify, TikTok)? Why those? ● Have you ever stopped working with a platform or tool? ○ If so, why?
Regulative Pillar	● What legal or contract rules shape the way you create, release, or monetize music? ● When a new technology comes along, how easy is it to know what's legally allowed?
Normative Pillar	● What unwritten rules do people in the music scene follow to stay on good terms with each other? ○ What do you think would happen if someone in the music industry broke these unwritten rules? ● Is there anything that's 'not okay' to do in today's music industry, creatively, ethically, or business-wise? ○ What happens when you break these expectations?
Cultural-Cognitive Pillar	● Would you say the ways of working in the music industry differ from other industries? ○ What makes it special? ● Would you say the music industry generally encourages innovation and new ideas, or are people cautious?
Legitimacy	● What makes a platform or partner "good to work with" from your perspective? ● How do you think AI tools will affect your work and income in the future? ● What are the biggest risks you see with new tools like AI in music creation? ● Has AI changed what "being creative" means to you?

	● How do people in your network or community talk about AI in music?
Concluding thoughts	● Is there anything you think platforms or tech companies do not understand about how artists and professionals work? ● Is there anything else you would like to add that we have not covered?

8.4.2 Platform

Topic	Question
Background Information	● What is your current role at Google? ● How are you connected to the specific AI-based music technology Google has developed?
Institutional Entrepreneurship	● Can you walk us through the evolution of the technology, from its inception to where it is today, and your role throughout that journey?
Platform decision on innovation	● Can you talk about Google's different initiatives in the music industry?
Platform Orchestration	● What were the initial motivations or goals behind the development of this AI-based music technology?

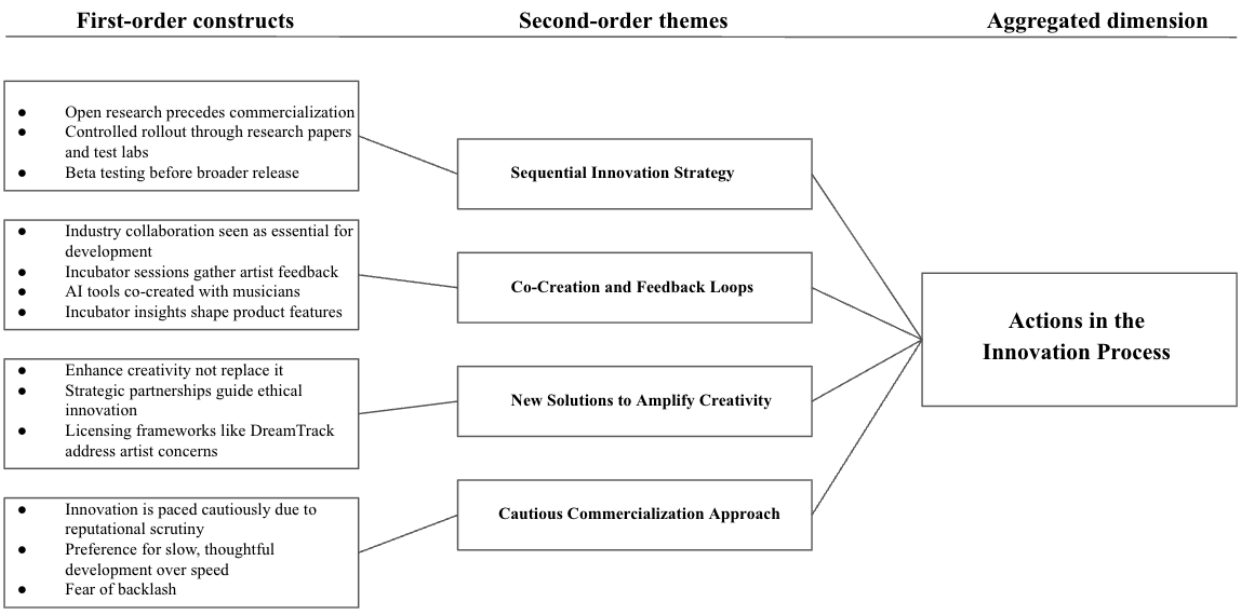
8.4.3 Former Platform Employee

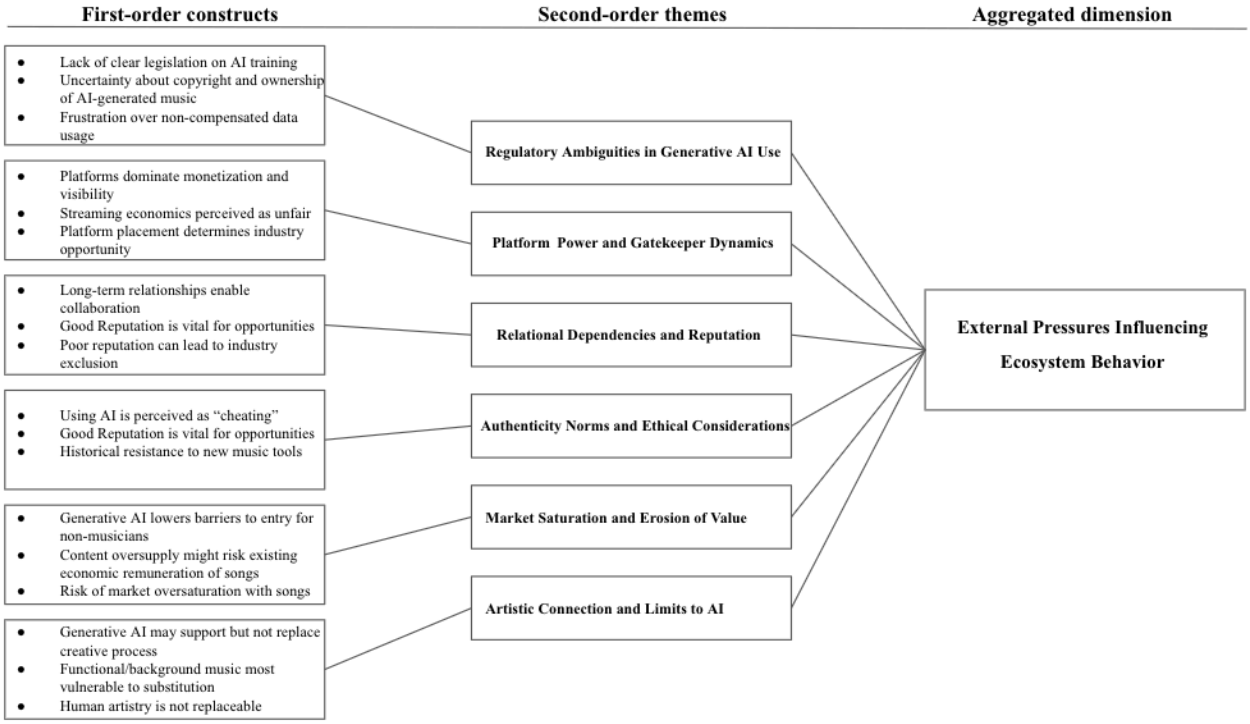
Topic	Question
Background Information	● What role did you have at Google? ● How long did you work there? ● What is your current role today?
Platform Orchestration	● Based on your experience, what would you say is Google's perspective when working with innovation? ● How would you position Google as a player in the business ecosystem?

8.5 Interview Sample

Interviewee	Organization	Role	Date	Duration
Preparatory Study				
Preparatory Study 1	Record Label	Management	11-03-2025	32 min
Preparatory Study 2	Google	Employee	07-03-2025	66 min
Preparatory Study 3	Independent	Artist	15-03-2025	37 min
Main Study				
Google 1	Google	Employee	31-03-2025	90 min
Google 2	Google	Employee	04-04-2025	89 min
Google 3	Google	Employee	27-03-2025	87 min
Google 4	Google	Former Employee	04-04-2025	35 min
Management 1	Record Label	Label	01-04-2025	43 min
Management 2	Record Label	Label	06-04-2025	41 min
A&R 1	Record Label	A&R	03-04-2025	43 min
Branding 1	Record Label	Branding	24-03-2025	36 min
Producer 1	Independent	Producer	31-03-2025	36 min
Producer 2	Record Label	Producer	26-03-2025	45 min
Producer 3	Independent	Producer	26-03-2025	43 min
Artist 1	Record Label	Artist	02-04-2025	45 min
Artist 2	Independent	Artist	27-03-2025	46 min
Artist 3	Independent	Artist	04-06-2025	47 min
Artist 4	Independent	Artist	30-03-2025	48 min
Songwriter 1	Independent	Songwriter	06-04-2025	59 min
Songwriter 2	Independent	Songwriter	24-03-2025	46 min
AI Company 1	AI Company	CEO	03-04-2025	62 min
AI Company 2	AI Company	CEO	26-03-2025	54 min

8.6 Coding structure





8.6 Google's Initiatives in AI Music

Product/Project	Launched	Description
Magenta Project	2016, June	An open-source research project exploring the role of machine learning as a tool for music and art generation. Also, to build a community of artists, machine learning researchers, and coders. Adapted from Eck (2016)
AI principles	2018, June	Guide responsible AI development and deployment through risk assessment, governance, and safeguards like privacy frameworks. Grounded in their three principles: 1. Bold innovation 2. Responsible development and deployment 3. Collaborative progress, together Adapted from Google (n.d.-a)
MusicLM Research Paper	2023, Jan	Research paper on MusicLM presents a hierarchical generative model that creates high-quality music from text or melody inputs. Adapted from Agostinelli et al. (2023)
MusicLM	2023, May	Public-facing demo and application of the MusicLM research paper into a beta-testing product. MusicLM creates original music across various genres based on input text prompts. Adapted from (Yim & Manickavasagam, 2023)
Lyria	2023, Aug	An advanced AI music generation model. Built by Google DeepMind, the model generates high-quality music and gives users more control over the output's style and performance. Adapted from Google DeepMind (2023)
DreamTrack	2023, Aug	An experimental feature on YouTube Shorts, which is a short-form video platform by YouTube that allows for the creation of 60-second-long vertical videos. DreamTrack is created with Lyria to help deepen the connections between artists, creators, and fans through music creation. Adapted from Google DeepMind (2023)
AI Music Tools	2023, Aug	Developed with Lyria, and is a set of tools that is designed together with artists, songwriters, and producers to amplify their creative processes. Adapted from Google DeepMind (2023)
Music AI Principles	2023, Aug	Google's commitment to developing AI tools for creation in partnership with the music industry. Based on three principle guidelines:

		1. AI is here, and we will embrace it responsibly together with our music partners. 2. AI is ushering in a new age of creative expression, but it must include appropriate protections and unlock opportunities for music partners who decide to participate. 3. We have built an industry-leading trust and safety organization and content policies. We will scale those to meet the challenges of AI. Adapted from YouTube (2023)
SynthID	2023, Sept	A digital watermarking technique that identifies and helps identify AI-generated content. Adapted from Google Deepmind (n.d.-b)
MusicFX	2023, Dec	A generative AI tool that allows users to create instrumental music from text prompts. Powered by MusicLM and SynthID. Adapted from Google (n.d.-c)
MusicFX DJ	2024, Oct	An experimental extension of Google's MusicFX tool. Enables users to generate and interact with dynamic, loop-based music in real time using text prompts. Adapted from Google (n.d.-d)
Lyria 2	2025, April	Google DeepMind's latest version of its advanced AI model Lyria for generating high-quality, controllable music and vocals. Adapted from Google Deepmind (n.d.-a)

9. AI Appendix

During the study, three different AI tools were used throughout the process, which were Grammarly, KlangAI, and ChatGPT-4. Below, we provide the rationale behind the selection of tools, potential risks of using the tools, and how we mitigate those risks.

Grammarly is a language writing assistant software tool based on generative AI and was used in the study to improve language by detecting incorrect grammar and spelling. The purpose of Grammarly was to enhance the quality, as it was seen as an assistive AI to detect errors that a human might miss. In essence, the use of Grammarly mitigated this by detecting errors. However, when using AI tools, it is important to note that the LLM models can be delusional and provide incorrect outputs. Due to this, we critically reflected on when the tool was used and looked at the full context to see that the suggestions were made correctly.

KlangAI was used to transcribe all the interviews that were conducted with the participants. This was done ethically as all transcripts and recordings were deleted after use. When reviewing the transcripts, we noted how some words and meanings were not transcribed in a correct manner, which is a potential outcome when using an AI tool. To gain a comprehensive and correct understanding of the interviews, we used a triangulation technique and filled in gaps from the recording. KlangAI was used to improve efficiency when transcribing. Even though transcribing is time-consuming, you get a deeper understanding of the data collected. Hence, the time saved on transcribing was used to invest more time in the data analysis. In addition to getting a deep understanding of the data, we reviewed the transcriptions while listening to the recording. Consequently, gaining a comprehensive understanding of the data and seeing that the output from the transcribed interviews aligned with what was said in the interviews.

ChatGPT-4 was used to improve grammar and formulations during the writing process. In addition, it was used to search for different academic articles to get inspiration when sourcing on different topics early on in the study process. The use of ChatGPT-4 was done with caution, and it is important to note that it was not used to write full sentences. The intended use was to see it more as an assistive AI that could improve our language and thereby reinforce the quality of the study. Hence, as aforementioned it is important to know that LLM models can sometimes

provide wrong information and be careful when using it. For instance, during our initial search of sources, we noted that some resources ChatGPT-4 provided did not exist. To address this, we employed a triangulation technique, verifying all suggested materials through independent searches. Only resources that could be confirmed to exist and seemed to be appropriate to the study were included.

9.2 Generative AI Sources

Grammarly. (2025). Grammarly (May 12 version) [Large language model]. https://app.grammarly.com/

KlangAI. (2025). KlangAI (May 12 version) [Large language model]. https://klang.ai/

OpenAI. (2025). ChatGPT (May 12 version) [Large language model]. https://openai.com/