

RESEARCH IN PROGRESS

# A VALUE SENSITIVE DESIGN APPROACH TO EQUITABLE REMUNERATION OF THE DUTCH MUSIC COPYRIGHT SYSTEM IN THE DIGITAL AGE

NERKO HADŽIARAOVIĆ,<sup>1</sup> MARLIES VAN STEENBERGEN,<sup>2</sup>  
PASCAL RAVESTEIJN<sup>1</sup>

<sup>1</sup> University of Applied Sciences, Research Center Digital Business & Media , Utrecht, Netherland

nerko.hadziarapovic@hu.nl, pascal.ravesteijn@hu.nl

<sup>2</sup> University of Applied Sciences, Research group Digital Ethics, Utrecht, Netherland  
marlies.vansteenbergen@hu.nl

There is a need for modernizing the Dutch collective management system of music copyright to match the rapidly changing digital music industry. Focusing on the often-neglected human values aspect, this study, part of a larger PhD research, examines the value preferences of music rights holders: creators and publishers. It aims to advise on technological redesign for music copyright management system and contribute to discussions on equitable collective management. Building upon prior research, which comprehensively analyzed the Dutch music copyright system and identified key stakeholders, this paper analyses 24 interviews with those key stakeholders to identify their values and potential value tensions. Initial findings establish a set of shared values, crucial for the next phases of the study – values operationalization. This research makes a academic contribution by integrating the Value Sensitive Design (VSD) approach with Distributive Justice Theory, enriching VSD's application and enhancing our understanding of the Economics of Collective Management (ECM).

**Keywords:**

equitable remuneration, digital music copyright system, value sensitive design, digital music industry, economics of collective management

## 1 Introduction

The existing system of collective management of music copyright urgently requires modernization to align with the rapidly evolving digital landscape of the music industry (Singer and Rosenblatt, 2023). The current system does not adequately account for the diverse and dynamic values of music creators, who may have different preferences, expectations, and motivations for their work (Bulayenko et al., 2018; WIPO, 2022). This paper presents a study that explores these value preferences of music creators and publishers, in this study referred to as rights holders. While a considerable body of work exists on equitable remuneration for music creators, it predominantly examines legal, economic, and technological dimensions, often overlooking human values (Nagel and Kranz, 2021). According to Van de Poel (2013), Value Sensitive Design (VSD) method typically emphasizes product development, offering the opportunity to incorporate values in technology right from the beginning. However, in the case of the digital music industry, which is an already existing socio-technological system, starting from scratch is not feasible. Instead, the focus shifts to designing interventions that adapt and integrate with what is already in place, modifying and enhancing the current system (Van de Poel, 2013). Our study integrates Distributive Justice Theory (DJT) within VSD approach for the Dutch music copyright system adding a normative layer to VSD using DJT and enhancing our understanding of the Economics of Collective Management (ECM) core constructs, as detailed in section 3 of this paper.

The study is guided by two primary research objectives, each building upon the other:

- 1) To identify the values and possible value tensions within the context of collective management of music copyrights;
- 2) To operationalize these identified values into a value-sensitive system of collective music copyright management.

This paper begins with a review of the literature on ECM and VSD in section 2. Section 3 outlines the research method. This research-in-progress paper concludes with preliminary findings, what work remains to complete the paper, and conclusions in Section 4.

## 2 Literature review

The digital era has transformed the music industry, requiring Collective Management Organizations (CMOs) to navigate new challenges in digital music distribution and consumption (Hesmondhalgh et al., 2021; Priest, 2021). European Directive 2014/26/EU aims to streamline online music licensing, enhancing CMOs' ability to manage and distribute copyrights efficiently (European Union, 2019).

VSD is a research approach aimed at embedding values into technologies (Friedman et al., 2013). Within VSD, the definition of value is what matters to people in their lives, focusing on ethics and morality (Friedman and Hendry, 2019). The goal of VSD is twofold: 1) it supports critical analyses of existing technologies concerning values, and according to Simon (2016) 2) it provides a concrete methodology to embed these values into new technologies and technology implementations. For the first goal, the critical analysis of existing technologies, VSD can be used to assess whether desired values, such as privacy and/or justice, are achieved by the technology design, and to identify the absence of values by dismantling biases within the technology (Friedman and Hendry, 2019). The methodology involves three main types of investigations: conceptual, empirical, and technical. These investigations interact with each other and iterate in a process that helps to identify stakeholders, values, and potential value conflicts (Friedman et al. 2013, Friedman and Hendry, 2019). The conceptual phase includes the identification of relevant values and direct and indirect stakeholders (Simon, 2016). In empirical investigations, social science methods are used to revise these findings with a focus on the opinions of stakeholders, as well as anticipated usage contexts (Manders-Huits, 2011). The technical phase, as described by Friedman et al. (2013), consists of two parts. 1) role that values play in existing technologies with a pronounced focus on the technology itself; 2) the proactive design of systems to support values identified in the conceptual and empirical research phases (Friedman and Hendry, 2019).

VSD's method for identifying key stakeholder values often employs a bottom-up, descriptive strategy, relying on stakeholder and user surveys (Van Wynsberghe and Robbins, 2014), yet the prioritization of these values often lacks a comprehensive evaluation system (Jenkins et al., 2020). Therefore we argue to incorporate the DJT as a normative ethical framework within VSD for our study. Firstly, DJT, with its focus on human values, aligns with the VSD's goals to embed values in technologies.

Secondly, the DJT's adaptability to various contexts and viewpoints makes it particularly suitable for the dynamic and diverse field of music copyright. Furthermore, the principle of proportionality relative to position, as articulated by Rawls (1999), is also considered. This principle posits that individuals who are more privileged or less vulnerable should contribute more, while those who are less privileged or more vulnerable should receive more support, thereby ensuring a fair balance of benefits and burdens in society.

Next to the abovementioned solution to the lacking of an normative framework within VSD-approach, there is a research gap in the empirical investigation of relevant stakeholder values and the potential value conflicts that arise from the digital transformation of the music copyright industry, particularly in the context of its collective rights management. Understanding these dynamics and their derived implications for both design and research is critical for the future development of an equitable system of collective music copyright management.

### **3 Methodology**

The conceptual investigation was the starting point of the tripartite iterative VSD approach conducted in preliminary research<sup>1</sup>. At the conceptual level, analyses were undertaken to identify the key stakeholders impacted by the technology, including their roles and their mutual relations. Empirical investigations, in this research in progress, will contribute to a deeper understanding and clear definition of the perspectives and experiences of the identified stakeholders, employing qualitative interviews with key stakeholders as a method (Friedman et al., 2013). Qualitative interviews provide a robust method for comprehensively exploring and understanding stakeholders' values, offering insights that may not be captured in a structured survey (Merriam and Tisdell, 2015). The study involved participants selected through purposive sampling, as described by Merriam and Tisdell (2015). Some were contacted directly per email or phone and were approached through our own network, some through LinkedIn or their organizations' email. All were selected based on the insights of the stakeholder analysis and involved both stakeholders directly and indirectly affected by digital transformation of the music copyright industry and its further technological development. We restricted the scope to key

---

<sup>1</sup> kept anonymous to ensure a blind review process.

stakeholders that might be most significantly affected (Friedman et al., 2013). Eventually we interviewed twenty individuals from five stakeholders groups. Four of these individuals were interviewed twice, due to time restrictions during the first interview, what resulted in total of twenty four interview transcripts with: six composers (direct key stakeholders), six publisher (direct key stakeholders), three representatives of Dutch CMO Buma Stemra (direct key stakeholders), 2 copyright lawyers (indirect key stakeholders), one editor in chief of a major Dutch radio station (indirect key stakeholder), one Digital Service Provider (DSP) representative (indirect key stakeholders) and 1 book publisher (indirect key stakeholders). These individuals spanned a wide age range from 20 to 59 years and brought diverse educational backgrounds, predominantly holding Bachelor's or Master's degrees. Their experience in the music industry varied, ranging from 10 to 35 years.

Interviews were conducted comprehensively, lasting from approximately 36 minutes to over two hours, and took place between November 2020 and December 2022. The format of these interviews varied, with some conducted face-to-face and others via video call. All interviews were audio-recorded and transcribed verbatim, with the full consent of the participants. In our research, we designed open-ended, flexible interview questions allowing participants to express their views and experiences fully. The data analysis utilized a thematic approach, with open and thematic coding to identify main themes and subthemes, following Merriam and Tisdell (2015). To ensure reliability and validity, three coders and one controller coder were involved, acknowledging the challenges in using multiple coders such as increased time, resources, and coordination. After transcribing the interviews, the next phase is to conduct a qualitative content analysis. Our developing thematic categories draw both deductively from Distributive Justice Theory literature, and inductively from empirical data. Two primary categories identified are 'Value' and 'Value Conflict,' each with various subcategories being defined. In the next research phase, these categories will be detailed in a codebook, complete with coding rules and examples. The transcripts are coded using Atlas.ti software, which, while not providing specific intercoder reliability statistics, offers valuable support for coding comparison and visual analysis. This software aids in identifying coder agreement and disagreement and allows for data export for further analysis. This process, including the potential revision of the codebook, enhances intercoder agreement and the overall reliability of our qualitative research. Additionally, the analysis will undergo peer debriefing,

where scholars and experts external to the project will review the research approach and outcomes.

## **4 Findings and conclusions**

### **4.1 Preliminary findings and work to be completed**

In the initial conceptual phase of the investigation, key stakeholder groups impacted by the digital transformation within the music copyright domain were identified. The current analysis of interviews has identified all eight values as defined in section 2. It also acknowledges potential value tensions. One such tension is for example between fairness and efficiency, particularly how efficiency-oriented algorithms might introduce bias, possibly marginalizing less popular music genres and affecting fair income distribution among creators. Another tension exists between autonomy and security, highlighting the complex balance between protecting creators' rights and the potential restrictions that might limit their creative and, for example, distributional freedoms. These areas present intricate challenges and opportunities for further exploration.

This research-in-progress has certain limitations. 1) its focus is primarily on the Dutch system, which may not fully represent the global complexities of music copyright management; 2) our emphasis on rightsholders means other key stakeholders like users, labels, and performing artists are not directly included in the analysis; 3) given the iterative nature of the VSD approach, additional research is required to ensure the identified values are accurately defined and captured. While our current research adopts a qualitative methodology, future study will incorporate a mixed-methods approach to enrich the depth and breadth of our findings. Finally, although we have engaged directly with stakeholders, there is a scope for deeper and more active involvement of these stakeholders in future studies, enhancing the practical relevance and applicability of our research in improving the collective management system.

## 4.2 Conclusions

This paper presents the findings from qualitative interviews with key stakeholders of music copyrights system in The Netherlands. The analysis offers a comprehensive collection and exploration of the values held by rights holders. These initial findings contribute specifically to the overarching goals of the PhD study and provide a foundational set of shared values that serve as a starting point for operationalizing these values. Subsequent papers will explore how these values can be operationalized as part of a technical investigation in VSD. Advice for future research is to implement an iterative and participatory design process, involving stakeholders at its every stage to continually refine and evaluate design solutions through stakeholder feedback. Despite its ongoing nature and inherent limitations, this paper lays a foundation with its comprehensive synthesis and dive into stakeholders' values and value tensions, paving the way for future research and design of an equitable system for collective music copyright management.

## References

- Bulayenko, O., van Gompel, S., Handke, C., Peeters, R., Poort, J., Quintais, J. P., and Regeczi, D. (2018). Study on emerging issues on collective licensing practices in the digital environment. Final Report for the Directorate-General for Communications Networks, Content and Technology (DG CNECT) of the European Commission, SMART, 69.
- Davis, J., and Nathan, L. P. (2015). Value Sensitive Design: Applications, Adaptations, and Critiques, in: van den Hoven, J., Vermaas, P. E. and van de Poel, I. (eds.), *Handbook of Ethics, Values, and Technological Design: Sources, Theory, Values and Application Domains*. Springer Netherlands.
- Deutsch, M. (1975). Equity, equality, and need: What determines which value will be used as the basis of distributive justice?. *Journal of Social Issues*, 31, 137-149.
- European Union. (2019). Directive (EU) 2019/790 of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC. *Official Journal of the European Union*.
- Forsyth, D. R. (2006). *Conflict In Group Dynamics*. Wadsworth Cengage Learning, 5, 388–389.
- Friedman, B., Kahn, P. H., Jr., Borning, A., Hultgren, A. (2013). Value sensitive design and information systems. In: Doorn, N., Schuurbiens, D., Van de Poel, I., Gorman, M. E. (Eds.). *Early Engagement and New Technologies: Opening up the Laboratory*. Springer, Dordrecht, The Netherlands.
- Friedman, B., Hendry, D. G. (2019). *Value sensitive design: Shaping technology with moral imagination*. Mit Press.
- Handke, C., Towse, R. (2007). Economics of copyright collecting societies. *International Review of Intellectual Property and Competition Law*, 38(8), 937-957.
- Hesmondhalgh, D., Osborne, R., Sun, H., Barr, K. (2021). Music creators' earnings in the digital era. *Intellectual Property Office Research Paper Forthcoming*.

- International Labour Organization. (2023). Decent work. URL: <https://www.ilo.org/global/topics/decent-work/lang-en/index.htm> (visited on November 12, 2023)
- Jenkins, K. E., Spruit, S., Milchram, C., Höffken, J., Taebi, B. (2020). Synthesizing value sensitive design, responsible research and innovation, and energy justice: A conceptual review. *Energy Research & Social Science*, 69, 101-727.
- Lomerson, W., Wingreen, S. (2009). Improving End User Value in Information Technology Projects: Exploring The Benefits of Q-sort Analysis. In: SAIS 2009 Proceedings, 24.
- Manders-Huits, N. (2011). What Values in Design? The Challenge of Incorporating Moral Values into Design. *Science and Engineering Ethics*, 17 (2), 271–287.
- Merriam, S. B., Tisdell, E. J. (2015). *Qualitative research: A guide to design and implementation*. John Wiley & Sons.
- Nagel, E., Kranz, J. (2021). Is 'Chained' Property the Future? A Review and Synthesis of Literature on Blockchain Technology and Property Rights. In: ECIS 2021 Research Papers.
- Priest, E. (2021). The Future of Music Copyright Collectives in the Digital Streaming Age. In: *Colum. JL & Arts*, 45 (1).
- Rawls, J. (1999). *A Theory of Justice*, Revised Edition. Harvard University Press.
- Simon, J. (2016). Value-Sensitive Design and Responsible Research and Innovation. In: Hansson, S.-O. (eds.) *The Ethics of Technology - Methods and Approaches*. London: Rowman & Littlefield International
- Singer, H., Rosenblatt, B. (2023). *Key Changes: The Ten Times Technology Transformed the Music Industry*. Oxford: University Press.
- Van de Kaa, G., Rezaei, J., Taebi, B., Van de Poel, I., Kizhakenath, A. (2019). How to weigh values in value sensitive design: A best worst method approach for the case of smart metering. *Science and Engineering Ethics*, 25(6), 1657–1680.
- Van de Poel, I. (2013). Translating values into design requirements. In: Michelfelder, D. P., McCarthy, N. and Goldberg, D. E. (eds.) *Philosophy and Engineering: Reflections on Practice, Principles and Process*. Dordrecht: Springer.
- Van Wynsberghe, A., Robbins, S. (2014). Ethicist as designer: A pragmatic approach to ethics in the lab. *Science and Engineering Ethics*, 20, 947-961.
- WIPO. (2022). *Collective Management of Copyright and Related Rights*. 3rd edition. Geneva: WIPO.
- Yakubova, I.B. (2022). Understanding collective management of copyright in historical context. *E Conference Zone*, 260–263.