

Adapting the Quality of Experience Framework for Audio Archive Evaluation

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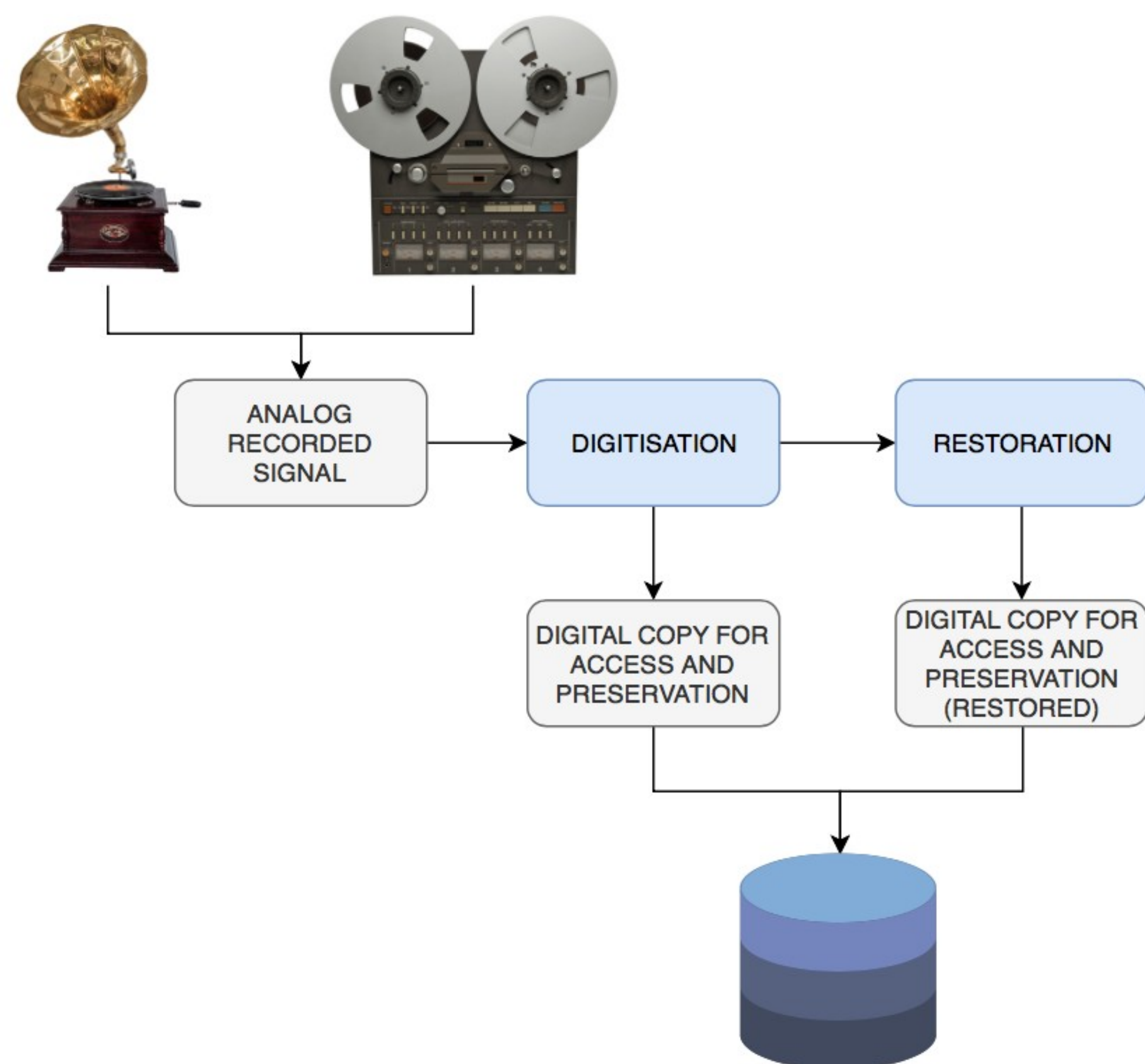
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Introduction

- What happens to the musical works of the past?



- Audio quality of **digitised** and/or **restored** material is poorly investigated implying low user satisfaction and loss of fidelity.

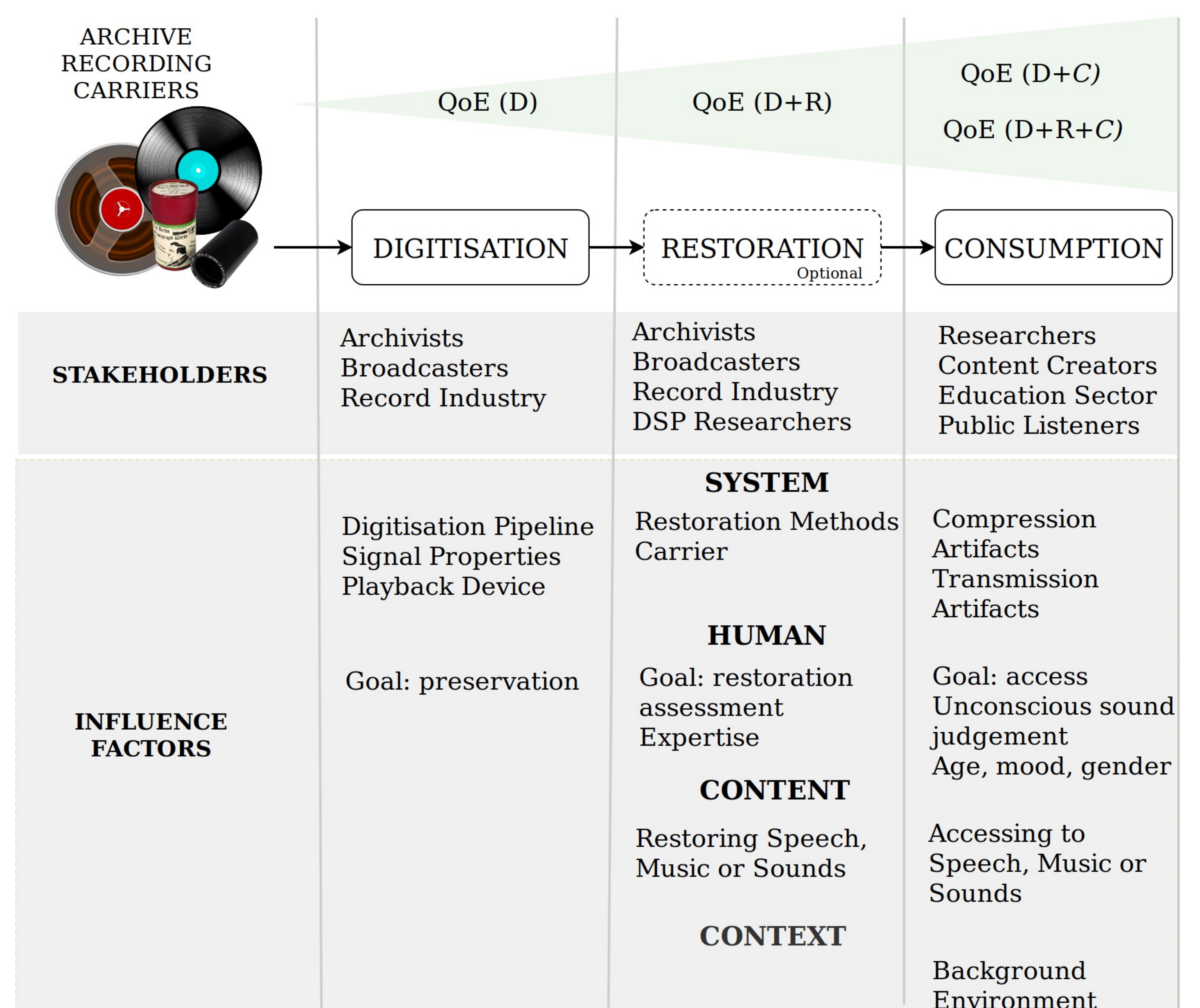
Objective

In this paper we discuss reasons how the **Quality of Experience (QoE)** framework can be adapted for assessing perceived audio quality in archive material.

Motivations

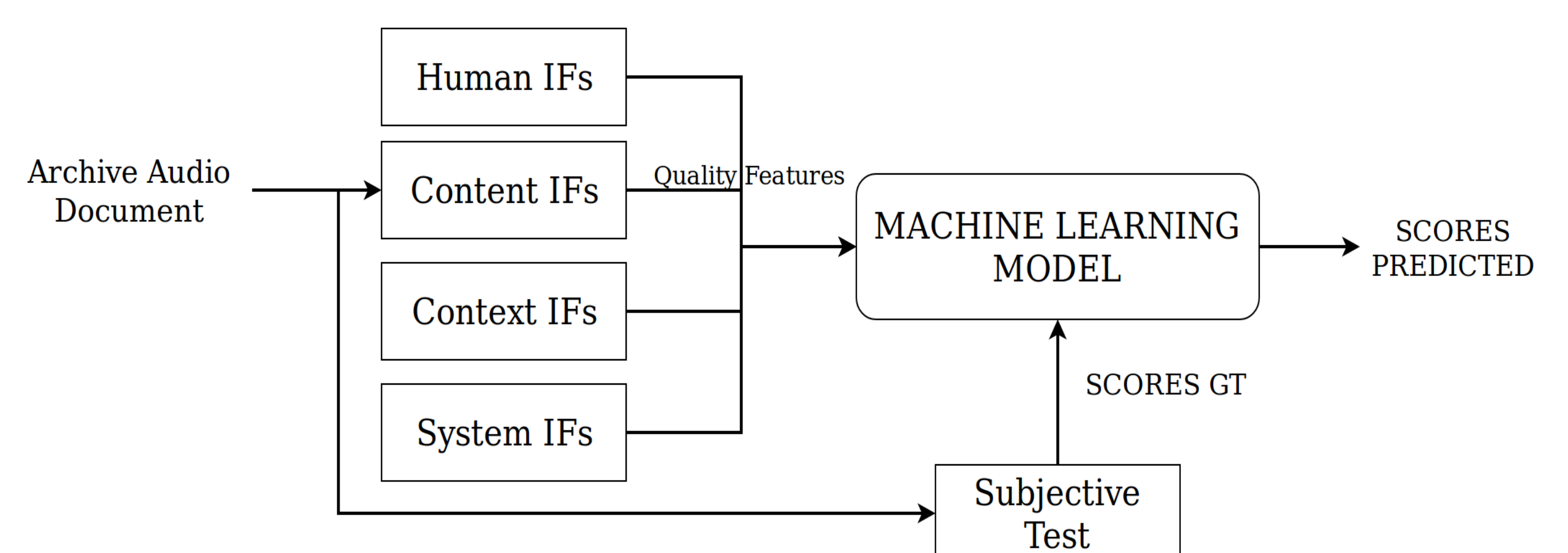
- **How quality is assessed?** Most organizations rely on personal and **individual judgements** when evaluating digitized/restored archive documents.
- **Can we do better?** Computational models such as **audio quality metrics** could be used to speed up the process and to guarantee accuracy. However, computational models derived from different applications cannot be adapted in this context for a variety of reasons:
 - Different quality expectations of stakeholders
 - A reference signal cannot be defined
 - Heterogeneity of audio archives
 - They were developed for different impairments

QoE Archive Lifecycle



QoE Evaluation

DIGITISATION	RESTORATION	CONSUMPTION
Parametric Models	No Reference Full Reference	No Reference



Conclusions

- This paper describes the importance of evaluating quality in digital audio archives and proposes a QoE framework to quality assessment.
- No prior research has applied a QoE framework approach to audio archive quality. We have illustrated that it can be applied to audio archives to identify the stages, stakeholders and models for a QoE centric approach.

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