

Teaching-Ready Notation from Historical Scans: Opportunities and Limits of OMR/AI

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Abstract

Many historical sources used in music education—such as solfeggio books, song collections, and theory manuals—have been digitised in recent years. Yet despite their growing availability, they are still rarely used in classrooms. A major reason is their format: scanned images that can't be searched, edited, or easily adapted for teaching. This paper looks at how optical music recognition (OMR), supported by AI, might help transform these materials into usable formats like MusicXML or MIDI. Using examples from music publications of the late 19th and early 20th centuries, the paper outlines the most common problems that appear when scanning and converting these scores—for instance, rhythm values that are misread, missing or misplaced barlines, incorrect key signatures, distorted staves due to old printing layouts, and lyrics that don't align properly with the melody. These kinds of errors can make the material confusing or unusable for students. Rather than presenting the OMR output as ready to use, the paper offers a practical checklist to help teachers and those preparing scores for the classroom. It highlights which musical elements matter most in a learning context, where human review is especially important, and what basic metadata (like source references and version notes) should be added so others can understand and reuse the material confidently. The final section links these points to real teaching situations—like quickly creating transpositions, building searchable collections by musical patterns, using playback in blended learning, or having students edit scores and design lesson materials. The work is part of the ReDiP project, co-funded by the European Union – NextGenerationEU.

Keywords: Blended Learning; Digitalization; Music Collections; Notation Accuracy; Pedagogical Application

