Teaching piano through alternate notation

Jack Swiggett ● CS 448B
The Problem

New pianists have to learn two different spatial layouts.
New pianists must learn:

- The position of the notes (generally requires learning note names)
- The meaning of sharps, flats, and naturals:
- The different note durations:
The Solution

A piano teaching methodology that...

• Teaches and reinforces only one spatial layout
• Uses notation that is sufficiently concise and readable to be used for complex music
• Is accessible and easy to use without outside help
Existing solutions for learning piano
Existing music notation research

- Hundreds of proposed notation systems
- Study by the Music Notation Modernization Association (MNMA)
  - Used trained musicians to test
  - Focused on theory-based, instrument-independent notation
  - Still requires learning two spatial layouts
Klavarskribo
(Cornelis Pot, 1931)

- Teaches one spatial layout
- Notation is concise and can be used for complex music
My contribution

● Develop a visualization tool for Klavarskribo
  ○ Existing tools are old, single-platform, and difficult to use

● Develop a tool designed for learners
  ○ Visually walk through and play back the piece
  ○ Reinforce similarity to a piano layout

● User testing, compared to standard notation
  ○ Time and frustration learning a new piece
  ○ Accuracy sight reading another piece with the same notation
Questions

● How can I test this solution in comparison to traditional notation?
● How might I modify the visualization or add interactivity to increase its novelty?
● Are there any other user interface concepts I might explore?