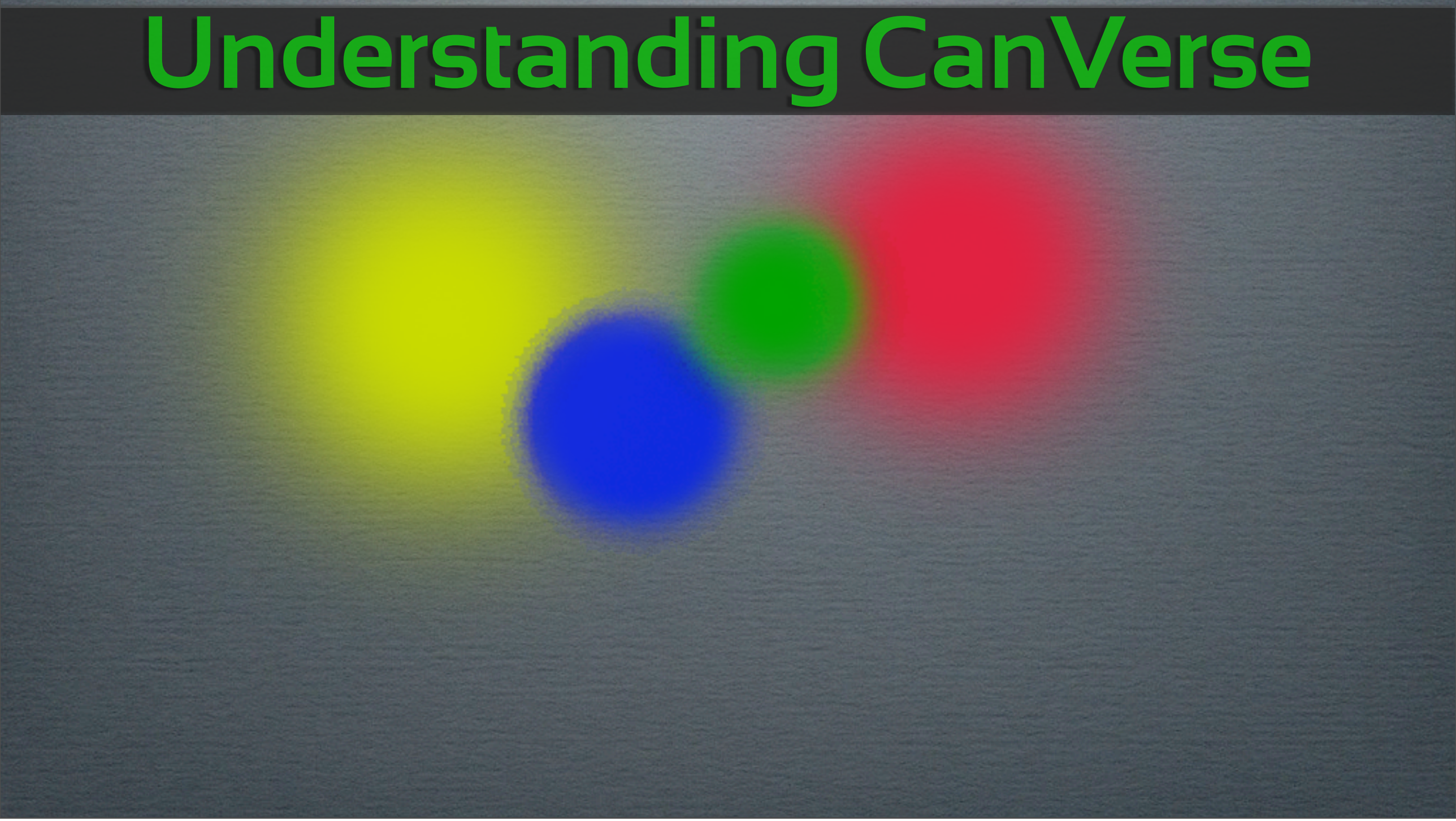
CanVerse

Image to Sound

Understanding CanVerse



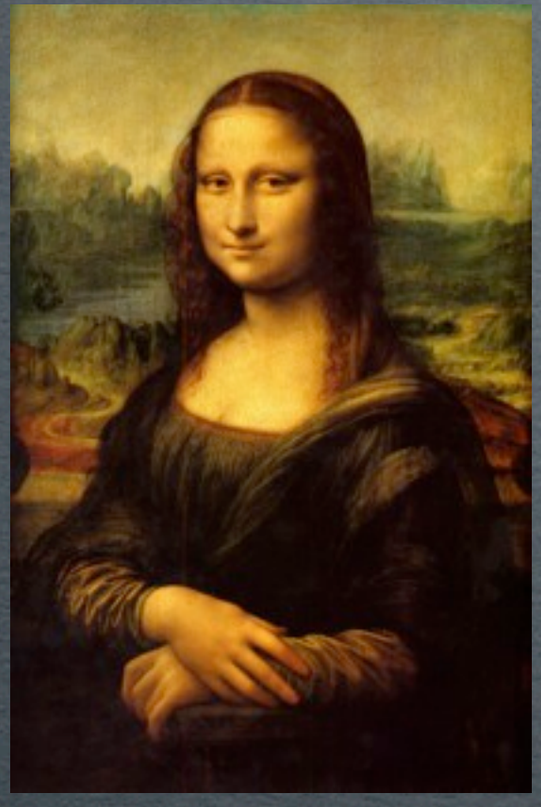
What's Changed?

- Originally pitched interpretation of existing images, we are now creating audio based on abstract art created in real time.
- This idea now focuses on creating synthesized audio that by interpreting visual abstract art generated by user input.

Challenges of Original Idea

- Interpreting what an image is very subjective. Not everyone may agree with music generated by our system for a piece of art.

- The output generated didn't generate any melodic structure, which made it hard to generate enjoyable music.



How CanVerse addresses previous Challenges

- Generating music in real time based on visual input created by the user, eliminates any misinterpretation as the artist is hearing the sound while creating the abstract art.
- We now have more control into how music is generated, enabling artist to create a more melodic tone with the digital image they create (based on color, length of mouse click, etc).

Technology and Benefits

- Overtone/Clojure for audio processing
  - Provides real-time audio processing

- Quil for visual processing

Updated Approach

- Prototype Phase - Completed
  - Create user interface where users can click anywhere in the canvas to generate a sound
  - Use location of mouse pointer, length of mouse click and movement of mouse pointer (while mouse button down) to determine generated sound
  - Simple grid interface designating quadrants to particular sounds

- Next Steps
  - Update visual interpretation to be less rigid (ie. Create pixel bursts based on mouse click length, stroke line interpretation)
  - Layering will allow creation of sound in forms of layers that can be played on top of one another.
  - Additional Synths for more audio options

Challenges

- Familiarizing with the technology has taken longer than expected for some team members which resulted in slower start

Prototype Demo