Keylab  
**BIG VOICE RECORDER + REMIXER**July 22, 2024

Soundscape Research on the City’s Sonic Fingerprint

* a cultural recorder 🡪 a cultural remixer
* a tool that captures, and presents, the acoustic fingerprint of a city
* a “big voice” as in the acoustic fingerprint of a city
* a remix interface that creates a dense ‘spectrum’ – a musical drone that represents the city’s soundscape as recorded by the participants
* Remix app gives the users freedom to fluidly mix between key elements of a soundscape that we define, potentially:

**natural**  
**cultural**  
**industrial**  
**technological**

**natural — cultural**

**high fi – low fi**

**high tech – low tech**

**signal – noise**

**neutral – emotional sounds**

**rhythmic — ambient**

**varied — continuous/constant**

**human-made**

**transportation/traffic**

**construction**

**animals/insects/birds**

**industry/technology**

* ask people to record sound, and then to take 1 photo of recording situation, which is also uploaded.
* give people the possibility to add tags and require them to answer 1-2 open text questions.

**Technical Details**

* tool is based on sampling rather than synthesis (or a mixed form in which sampling dominates)
* networked, cloud-based
* computational analysis of sound input
* front-end user interface that gives user agency to remix the city’s sonic fingerprint and produce a loud, dense, interesting sound (not just noise)
* rhythm plays a huge role when crafting a dense stream of sound

**Input analysis**

* what info to get from user: ask them to help us identify what they record
* computational analysis: run rhythmic peak/impulse detection/onset detection
* run spectral analysis/frequency band analysis 🡪 how dense? which frequencies dominate?
* run some sort of analysis for continuity/constancy of density across bass/mid/treble
* run semantic analysis: what could it be?
* classify/sort materials

A blue circle and green object

Description automatically generated

**Visualization**

* user’s recording must be visualized right away after recording as a reward for their contribution
* the “Big Voice” in the database needs visualization, to show to the users how the collection is growing day by day, and to show them results
* remix tool needs visualization component.