Music Practice & Planning

Effective of practice for Musicians is hard

"...oftentimes we get lost in our art. And when it comes to basic planning we encounter problems..."

The Users

Jason - The musician (Graduate student)

Alana - The amateur (Highschool)

Jennifer - Music teacher and Parent

Jason

Age: 27

Profession: Student

Location: Wien

Instrument: Piano

Experience: 18 years
Graduate student

Main reason: Structure, Overview

Secondary: Feedback

Jason is a very talented Piano player, however during his own practice he is quite unproductive and oftentimes does not know where to start. This is also the reason why he is yet to finish his Masters Degree. For this semester he intended to find a way to improve the structure of his exercise sessions. Another issue he has is that he often forgets his notes at home and thus misses working on problems he noted done during earlier sessions.
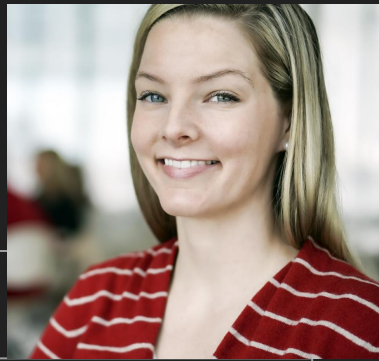
Alana

Age: 19

Profession: Student

Location: Canada

Instrument: Piano

Experience: 5 years learning

Main reason: Prepare for an audition

Secondary: Get better results for her practice session

Alana is still in highschool, and taking a group course in music. She wishes to become more serious about her playing. Still, she don't want to invest all of her time into it, because she does quite a lot of sports as well. At the end of the year she has to perform some repertoire in front of a jury. The Jury's decision is going to be crucial in where she's going to apply for University. Her Mom sees her talent and progress she's making even more than herself. The lack of acknowledging of her process sometimes lets Alana doubth herself, and drags her down, even though she's making above average progress.

Jennifer

Age:	45
Profession:	Music Teacher
Location:	Zurich, Switzerland
Instrument:	Piano
Experience:	34 years
Main reason:	Communication with Students
Secondary:	Metronome, ease of use

Jennifer has played the piano since eleven. She reached a high level and started teaching. Now, she has been a teacher for around twenty years. Despite the many practice aids out there, she hasn't found one she likes yet. What she is looking for is something that combines many features. For her, the most important thing is communication with her students. She wants to be able to generate practise plans for all of her students and check on the completed tasks. Currently this takes up valuable teaching time, she would prefer to do this from home, and have a more effective way to analyze the students practice. Furthermore, she uses a metronome extensively and currently carries one with her everywhere along with everything else she needs.

Since Jennifer is more on the artsy than on the technology side of things, any device/interface has to be very user friendly, and should be easily understood by both her and her (sometimes) very young students.

She has two children and both of them lost interest in playing the piano, she is deeply frustrated by this.

The primary issue is….

How to? Stop *"Getting Lost"* during practice session

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01 Structure the problem/task
     Have a systematic approach to resolve the task

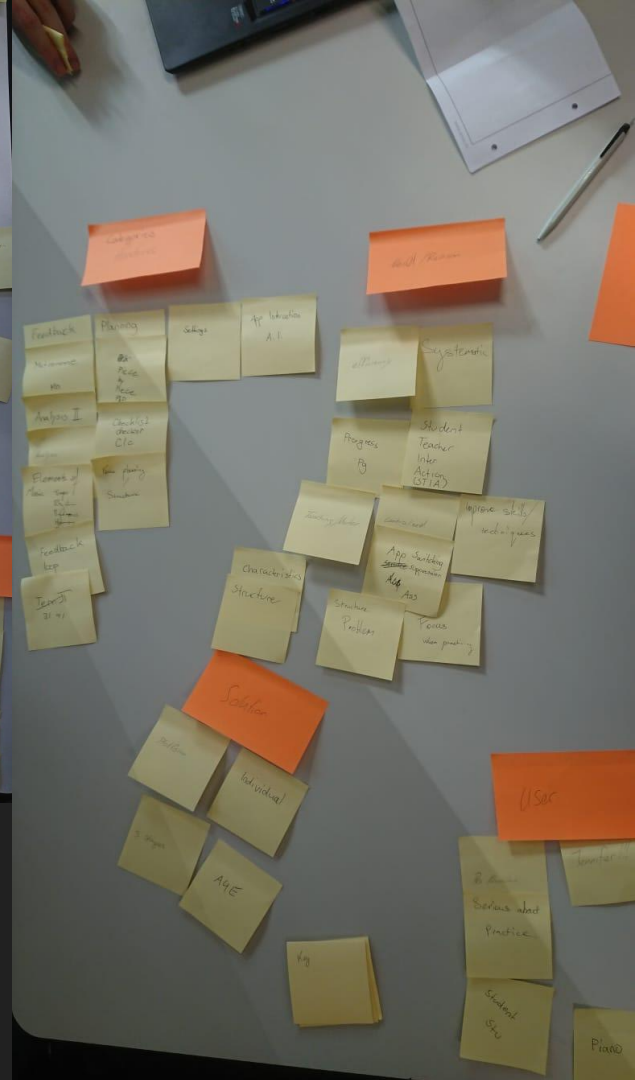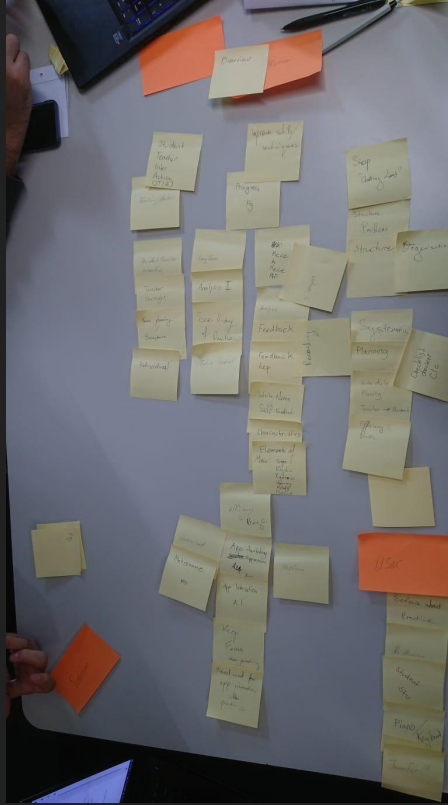02 Improve technique and skills

Affinity Clustering

Major Groupings:
- Users
- Solution
- Needs/Reasons
- Categories and Features
  - Feedback forms
- Student - Teacher Interaction
- Planning

Regrouped:
- Platform usage and requirements
- User
- Stop 'getting lost'
- Systematic
- Progress
- Analysis
- The "Teacher"

Requirements

- Systematic and structured
- Feedback
- Motivational
- Encompass 'lifecycle' of practicing a piece
- Piano (first) and always available

Thoughts and Ideas

Sorted into groups, and then a second round of 'beyond requirements' ideas too

Major groups

- Features
- Functionality
- Interaction - How to use
- Marketing
- Motivation
- Feedback
- "Gimmicks"

multiple categories / pieces
- Younger people should be able to use the app

Interaction - how to use the app
- The 10 Nielsen heuristics

- Not reinventing the wheel, using the norms of interaction
- Homescreen - overview
- Subcategories
- drawer menu
- Customization
- Navigation through the different pages in general
- Intuitive interaction
- Dark theme for interaction - themeable?
    - light theme
- Sound feedbacks
- Choose role, (interaction) redesign layout dependent on usage role, or be able to redesign the layout
- Navigate with Sounds - UX - listen to a define audio calls, eg. triplet of f# to say done / restart etc
- Structured vs free form practice session layout

Marketing

- Startup music theme - brand identity (similar to Sibelius music notation software) (marketing)
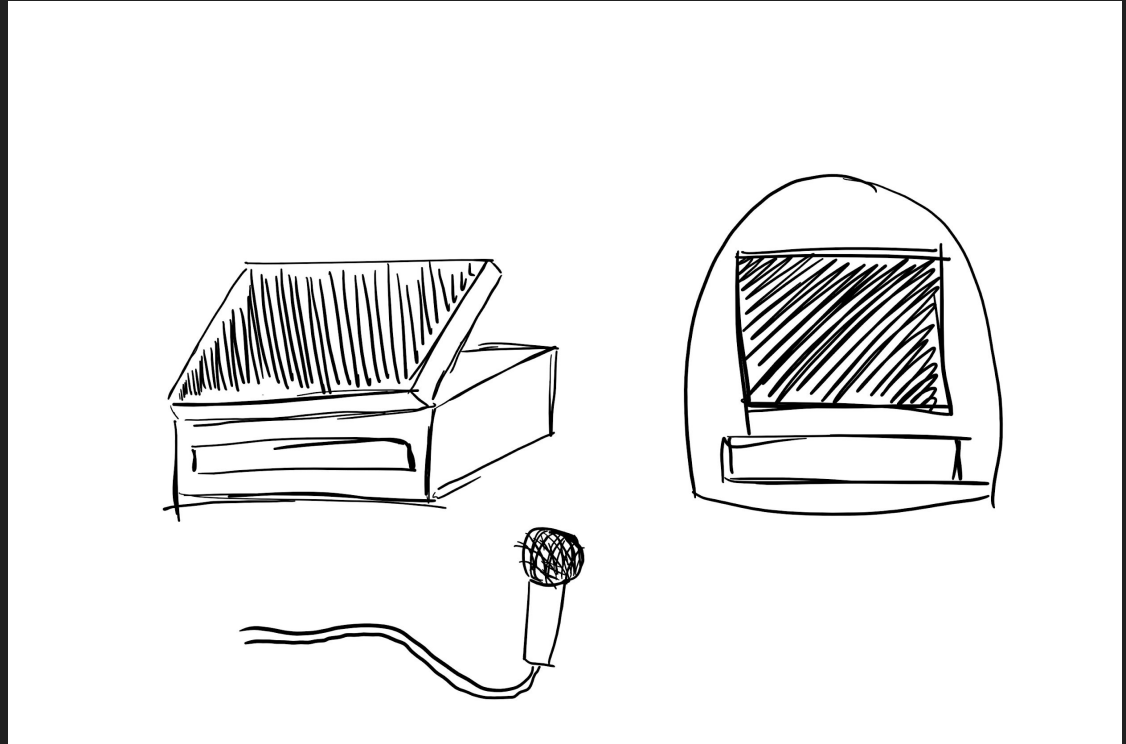- Complete integration
- Twitch api
- Environmental friendliness, reduce paper usage (marketing)
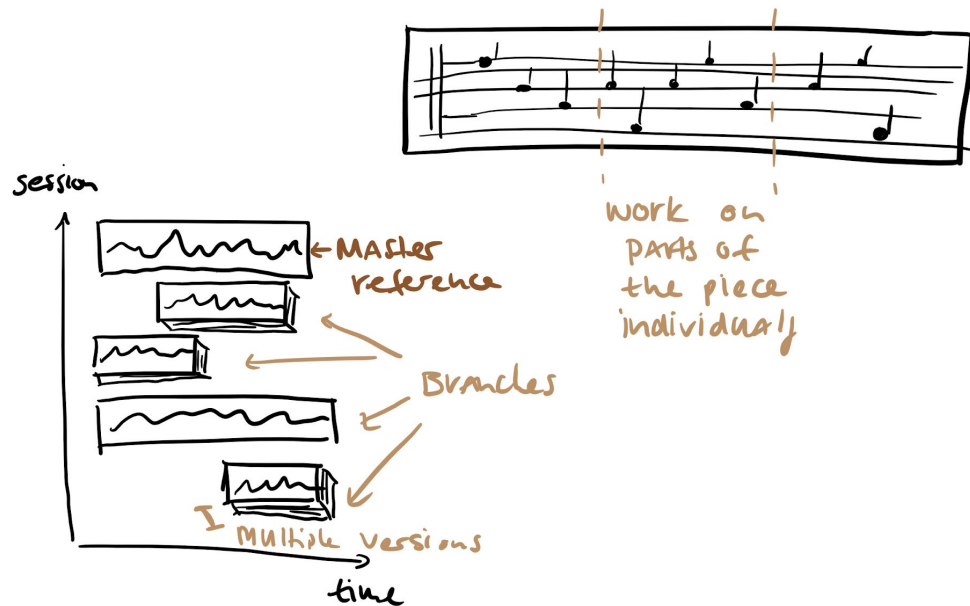
Prototype "Bothofen"

Overview

- Physical Instance
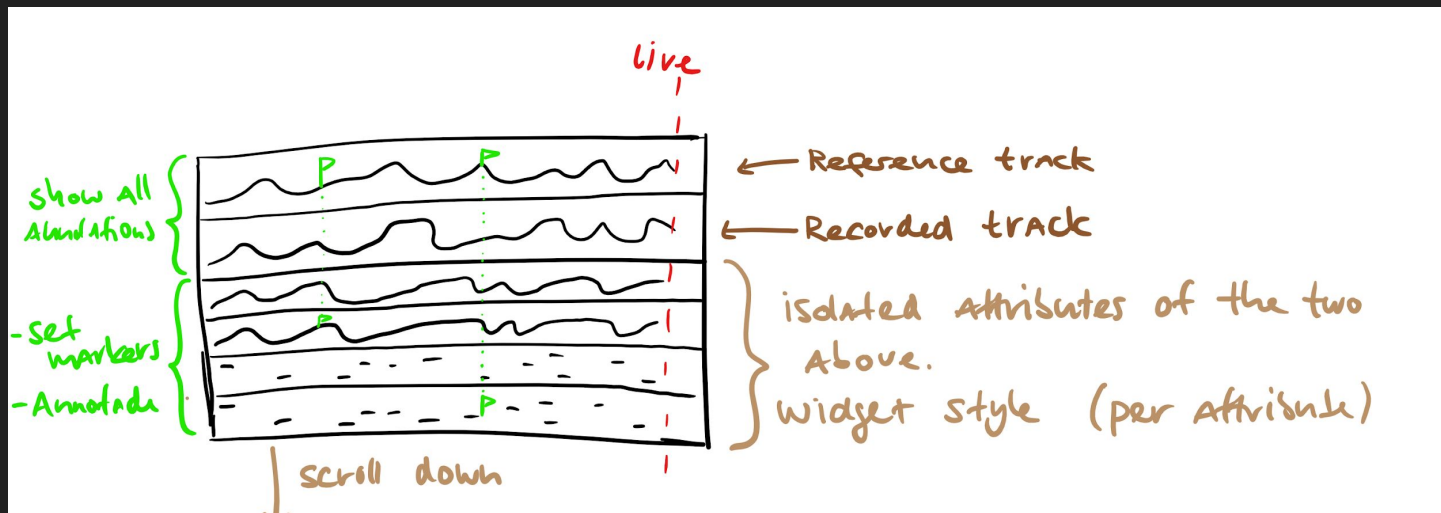- Handy

Functionality I

- Recording
- Git-hub Structure
- Review, Annotate, Change
- Share with Teacher/ Community
- Mark favourites, but keep old
- Build your reference

Phase II and III

Functionality II

- Sound analysis toolbox
- Integrate in live recordings or past ones
- Master branch as reference - Goal
- Feedback through color

Functionality III

- Diary with playtime, annotations and accomplishments
- Set and achieve goals - Structure and motivate
- Progress in technical skills over time
- Sharing with teacher

Functionality IV

- Face-to-Face session via Skype
- Transcription of sound - Talk about it!
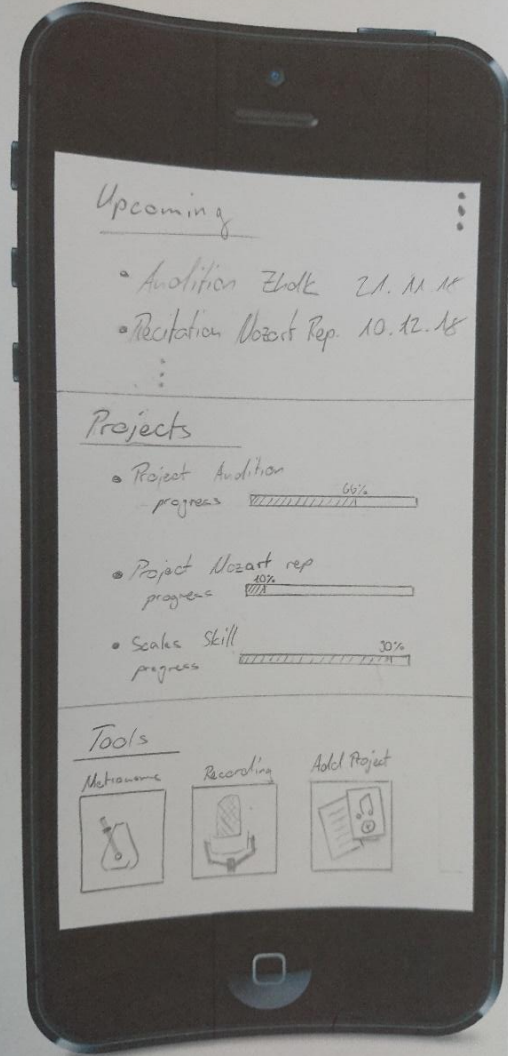- Peer review branches

Useful Features

- Cell Phone Locker against distraction - Charge as reward?
- Reward function - Sensor productivity and "Gamify"
  - Since Physical instance, could also bake cookies
- Metronome for Obvious reasons
- Portable Microphone - Sound Quality

- Aux I/O - Load in references/ E-Piano input
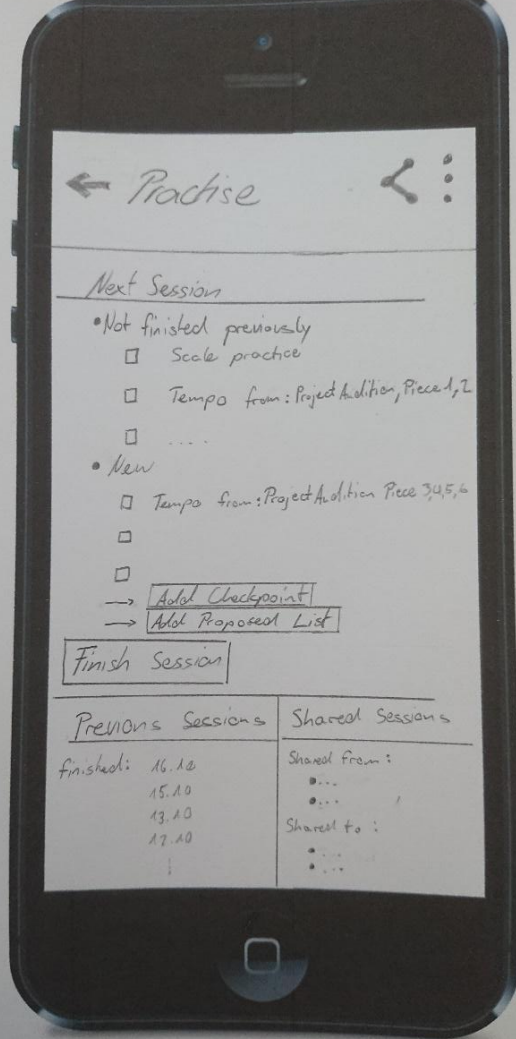
- Intuitive Voice Control - Hands on the Piano

Prototype "Ten-π"

practice and planning app

Features

- Connected to calendar
- Visible project progress
- Sharing between teacher and student
- Additional tools
  - Metronome with active feedback
  - recording /audio replay

Practise

- Plan each Session
- Add in proposals of teacher
- Directly connected to projects
- Share progress with others
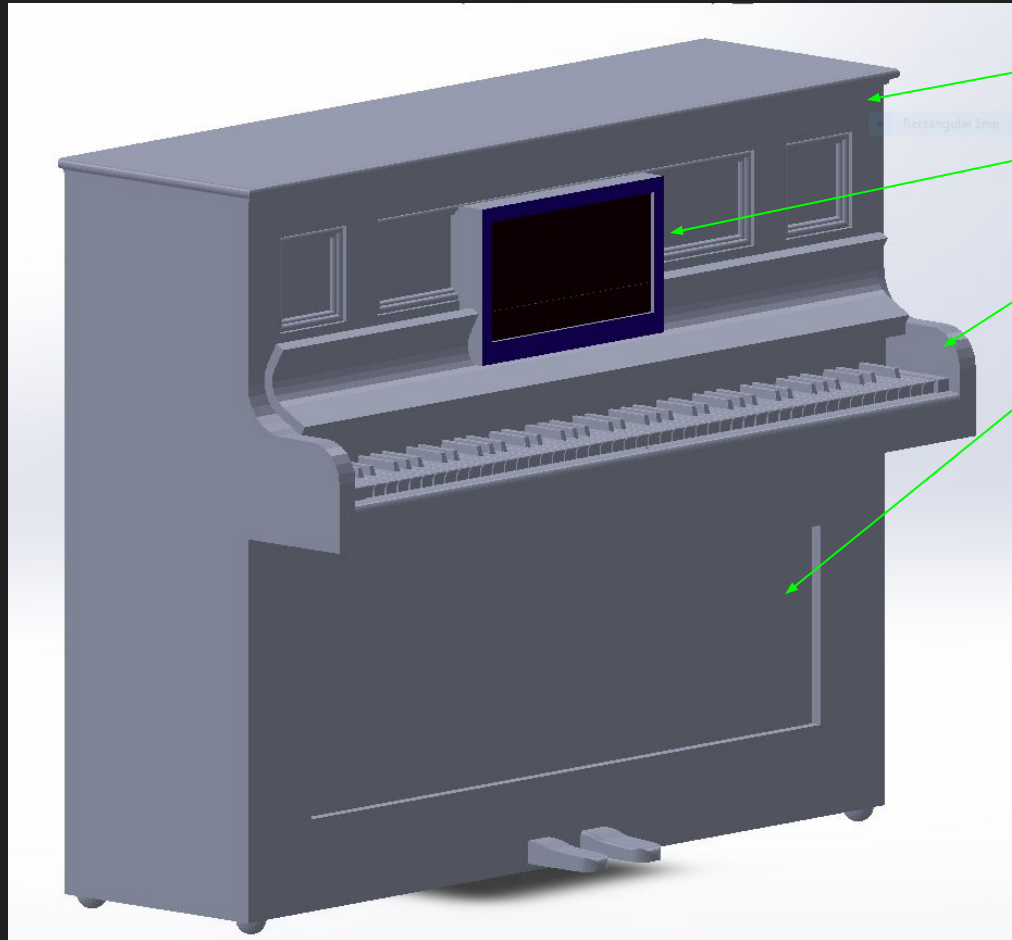- Review older sessions

Prototype "π-ano"

An augmented piano for better practice and planning

Features

- Full size Piano
- 16'' Touchscreen
- WiFi router to connect your phone
- π-ano™ app for easy planning

- Fully integrated learning with:
- Recording of your pieces
- Analysis of your pieces
- Personalized, AI powered feedback

- Infrared Sensors to track hand movement
- Camera to analyse students posture

π-ano

Camera

Touchscreen

Infrared Sensor

WiFi router