

A first iteration of the satisfaction questionnaire, following step by step the video-guides of two scenarios (identification of a verticality, and selection of a cadence), is structured into two parts: a first one taking into account the main features and functionalities already available in the interface, and a second, more general part questioning about frustrations and needs of the involved experts, about the usability of the interface, and about its ergonomics. The group of experts have been chosen from a list of fifteen potential stakeholders formed by:

- 8 musicologists/music analysts: specialists on different periods, from the Renaissance to the 20th century (from Belgium, Canada, Italy, Netherlands, USA);
- 3 musicologists/computer scientists (from Switzerland, Great Britain, Netherlands);
- 2 digital musicologists (from Great Britain, USA);
- 1 music theorist (from Germany);
- 1 composer/philosopher (from the USA)

For this first iteration of the Questionnaire a small group of three experts have been selected from the above-mentioned list. Others will be asked to give their feedback for the forthcoming iterations of the Questionnaire that will be adapted according to the improvements and developments of the interface. Furthermore, next versions of the Questionnaire will give to the experts the possibility to suggest their own analytical scenarios to eventually be implemented in the interface. The first iteration has been distributed at the end of November 2022, permitting to collect important feedbacks on the Tonalities' Collaborative Annotation Interface for Music Analysis.

As of today, on the basis of the three collected Satisfaction Questionnaires¹, Tonalities' interface obtained a score of 2.1 while a score of 3.0 ("Moderately satisfied") has been defined as the threshold. Furthermore, two stakeholders declared that they would unlikely recommend this interface at this stage, while only one stakeholder would likely recommend it. All three stakeholders suggested several improvements and made emerge some general problems, critics/suggestions on ergonomics, and corrections on the terminology adopted in the interface:

- the process of selection requires too many passages and manipulations;
- the process of annotation is time-consuming;
- a list of shortcuts for all the typologies of selection should be added;
- a system of pop-ups could be adopted to manage the classes and properties of the theoretical models;
- to implement an automatic system for generating some basic analysis (e.g. to track all the dissonances);
- ergonomics and intuitiveness/clarity need to be improved;
- the hotspot of the elements in the score must be enlarged in order to improve the selection options;
- some terminology needs to be corrected.

Improvements must, therefore, be made in the perspective of reducing clutter. A possible solution could also be to ask the intervention/collaboration of an expert in Web ergonomics. A general strategy to adopt could be to study the functionalities and the options already available in other similar music web-services, in order to meet the end user's habits and familiar gestures. An extra

¹ https://github.com/polifonia-project/tonalities_pilot.

effort must also be made in order to reduce the time-consuming of the music analytical process on the screen. This should be potentially be less than the same process conducted in the traditional way. Another important aspect to take into account is to give the possibility to the end user to suggest a personal and adapted analytical scenario, going beyond the possibilities currently offered by the Interface.