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The purpose of this article is to share details about a project employed within an undergraduate music theory course.[i] The course project was designed to facilitate a transformation from "music theory student" into "music theorist" by engaging students in the "dangers and delights" of sharing their musical speculations with a vast online community.[1] In particular, the project provided a distinct opportunity for students to go beyond *learning* music theory into the realm of *doing* music theory.[2]

Project Objectives

The "Chromatic Harmony Wiki Project" was designed with two main objectives: 1) to provide an opportunity for students to apply their theoretical knowledge of chromatic harmony in a personally meaningful way, and 2) to prepare students to live in a world of open source knowledge, thereby understanding its place, purpose, and limitations. The project consisted of a "scavenger hunt" type assignment in which students searched their own music collections for specific types of chromatic harmony, and then shared their findings via Wikipedia.

Ranking high within Bloom's revised taxonomy of education is the ability to apply knowledge.[3] Music students are often expected to apply theoretical knowledge of music to their everyday musical activities, such as being able to both anticipate and

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[1] The terminology: "dangers and delights," is borrowed from Michael Rogers, Rogers, *Teaching Approaches in Music Theory, p.79-80.*
[2] The emphasis on *doing* music theory is also borrowed from Rogers, *Teaching Approaches in Music Theory,* p.80.
[3] See Anderson et al., 2001.

recognize various musical patterns, structures, and functions. A particularly useful assignment for assessing one's ability to apply knowledge consists of asking students to find examples of a given musical structure within their personal library of music — a type of assignment that I refer to as a "music theory scavenger hunt." Through critical listening, these scavenger hunt assignments encourage students to not only apply, but also transfer knowledge from one musical style to another. When searching for instances of chromatic musical structures, there are a few advantages to an "aural scavenger hunt" as opposed to a "visual score search." The latter primarily relies on visual learning with aural confirmation, whereas the former emphasizes the importance of aural learning. While both types of assignments can be valuable, aural scavenger hunts allow students to apply theoretical concepts to a larger body of musical works that may not be available in notated form.

As a way of encouraging students to apply knowledge about chromatic harmony in a personally meaningful way, the first step of this project consisted of a "chromatic harmony scavenger hunt." Using their personal music library as a corpus, students compiled a list of songs that contained specific chromatic features, including: secondary dominants, secondary leading tone chords, borrowed chords, modulations, Neapolitan chords, and augmented sixth chords.

In order to help students understand the place, purpose, and limitations of open-source knowledge, students were asked to add their findings from the "chromatic harmony scavenger hunt" to a specially designed Wikipedia page. This step of project, I would argue, was in many ways "transformative." Students experienced *doing* music theory by speculating about the existence of chromatic harmony to an audience beyond

the classroom. During the first iteration of this project, I created a Wikipedia page that was merely a list of headings and sub-headings related to chromatic harmony; students were then tasked with organizing their contributions under appropriate headings. Creating and editing a Wiki page is a simple process, and minimal classroom time was required to explain the editing process.[4]

Project Assessment

This project was designed to be both low-stake and high-impact.[5] At the beginning of the term, students received a rubric detailing the project's objectives and defining the point values for various contributions. Each type of contribution was worth a pre-determined number of points. In this specific iteration of the project, relatively rare constructs were worth more points than commonplace constructs (see table 1), but instructors might alter the rubric to meet a variety of pedagogical objectives. The goal of the project was to earn 100 points. Students gained points by making plausible and theoretically sound contributions, and lost points for contributing information that was incorrect, inaccurate, or improperly formatted. In order to encourage students to be bold in their interpretations, they were permitted to make extra contributions so as to have a net sum of 100 points.

Students submitted projects by summarizing their contributions and tallying the number of points earned. Project summaries required minimal time to grade and verify by ear. As the project was ongoing throughout the semester, some students were able to

[4] Interested readers should consult the following link for a detailed tutorial: http://en.wikipedia.org/wiki/Wikipedia:Tutorial

[5] "Low stakes" and "high standards" are emphasized in both Ken Bain's, *What the Best College Teachers Do*, and José Antonio Bowen's, *Teaching Naked: How Moving Technology Out of Your College Classroom Will Improve Student Learning*.

finish the project by the middle of the term. An added incentive for students to finish early was the option to share some of their favorite musical examples in class, especially if a given claim involved stretching a theoretical possibility to the limits. Lively classroom debates in response to highly speculative claims were quite common.[6] For example, consider a student's claim about the presence of a German Augmented 6th chord in the Beatles' "Oh! Darling." Evidence in support of the claim was that aurally, they heard a dominant 7th sonority built on scale degree flat 6 resolving to the dominant harmony (scale degree 5) of the key. Evidence against this claim was found when the student consulted a visual representation of the score (i.e. a lead sheet) and found the sonority to be notated as an F7 chord rather than a German Augmented 6 chord. This discussion fostered a new classroom appreciation for the flexibility of certain musical structures and functions, as well as encouraged students to ponder the "essence" of the theoretical concepts covered in the course.

Table 1. Example Scoring System

Secondary Dominants: 10 points
Secondary Leading Tones: 10 points
Borrowed chords: 10 points each
Modulations: 20 points
Neapolitan Chords: 25 points
Augmented 6th chords: 35 points
Linking our page to other relevant pages: 2 points
Corrections to erroneous interpretations: 5 points
Other thoughtful contributions: Negotiable!

[6] Agawu argues that ambiguity is often neglected within theoretical discussion. See "Ambiguity in tonal music: a preliminary study." *Theory, Analysis, and Meaning in Music* (1994): 86-107.

Project Benefits

Several benefits of the "Chromatic Harmony Wiki Project," both foreseen and unforeseen, are briefly discussed below. These include the benefits of having students apply their knowledge of chromatic harmony, the value of working as a team to build an online music theory resource, learning about information literacy, and discovering the potential of open content projects.

A chief motivation for this assignment was providing students with an opportunity to transfer and apply their knowledge of chromatic harmony. In addition to actively searching for examples of chromatic harmony in their personal music libraries, students were also asked to reflect on the strategies they used to find credible contributions: by ear, by sight (i.e. scanning notated lead sheets/transcriptions), or via some other method (e.g. using a search engine). In most cases, students verified their contributions by using multiple methods, allowing students to make meaningful connections between musical symbols and musical sounds. Student strategies were often indicative of their theory skills; many students reflected that the project would be easier if their "ears were better."

Another project benefit was the opportunity for the class to work together on a common project throughout the term. This project resulted in the creation of an online, and open-source, musical anthology of chromatic harmony that could be edited by anyone. As opposed to other similar resources, our small online index of chromatic harmony reflected the unique musical interests and tastes of those who contributed. As the anthology grows, it has the potential to become a valuable resource for both future music theory students and instructors. Throughout the project, students were able to

experience the reward of creating a useful knowledge bank for themselves and their classmates, and at the same time, contribute to a potentially valuable music theory pedagogy resource.

Throughout the project, students learned about the place, purpose, and limitations of open-source knowledge. By contributing to Wikipedia, students discovered through experience that open-source content is "unfiltered" – an experience that teaches an important lesson about using open-content as a scholarly resource. In particular, students may learn a great deal when their contributions are altered or removed by another Wiki user. With multiple interpretations being commonplace in our discipline, music theory students must learn to handle and assess criticism, especially criticism that originates from "beyond the classroom."

One of the unforeseen benefits of this project was the opportunity to work with a global audience. Anyone with Internet access was permitted to contribute to our course project. A few contributions in foreign languages demonstrated to the students that we were not only sharing our theoretical findings with each other, we were also sharing our music theory work with everyone on the World Wide Web. In addition to being excited that our project could experience explosive growth, students were also excited to explore "outside" contributions of chromatic harmony structures in unfamiliar styles (in this particular case, Chinese pop music).

During the first iteration of this project, I had expectations about what might and might not work. I too had to learn to let the course page evolve in ways that I hadn't intended or imagined. While some of these changes were minor, such as general page organization and formatting changes, other alterations were more substantial. For

example, I was initially taken aback when the course Wikipedia page name was changed from "Examples of chromatic harmony in popular music" to "List of songs with chromatic harmony." From experience, I now realize that adding a wiki component to an assignment or course project relinquishes some degree of control. While some might view this "loss of control" as a pedagogical disadvantage, a case could be made that such projects are more similar to team projects that students might encounter in the real world.

Project Results & Conclusions

Over a two-year period, contributors to the wiki project created an online anthology of chromatic harmony consisting of nearly 500 examples. Students took hold of a forum to make bold claims about their music while also learning about the limitations and possibilities of open source knowledge. Despite the growth and popularity of this project, the Chromatic Harmony Wikipedia page was deleted in October, 2014. I'd briefly like to contextualize the removal of our wiki resource, promote our new and improved Chromatic Harmony Wiki, and share a few of the lessons learned from this experience.

The Chromatic Harmony Wiki page was removed from Wikipedia for two primary reasons: the "non-encyclopedic" nature of the content, and the possibility that contributions might be considered "original research." The Wikipedia community encourages contributors to "Be Bold"[7] with regards to the content that they add, however, some content simply does not belong in an encyclopedia, printed or otherwise. The content of our course project was deemed to be more anthological than encyclopedic, prompting the need to move the chromatic harmony wiki to a location other than an open

[7] https://en.wikipedia.org/wiki/Wikipedia:Be_bold

source encyclopedia. The second reason for removing our course site stemmed from the principle that Wikipedia is not a location for disseminating original research. "Doing" music theory involves make interpretive claims about written notation and/or recorded music, and to some, such claims fall into the category of "original research." Music theory content that is supported with peer-reviewed research is welcome on Wikipedia. However, this project was designed so that students would apply and discover unique musical features via everyday listening, not via linking existing peer-reviewed resources to a wiki page. This limitation stood antithetical to the goal of empowering students to analyze their own music collections, and thus, furthered the need to find a more suitable location for this open-source project.

The new and much improved Chromatic Harmony Wiki page has since been relocated to a new home: Wikiversity, an open source repository of learning materials.[8] The structure of the new wiki, which is currently entitled "Anthology of Chromatic Harmony," has been redesigned in order to encourage more detailed and contextualized contributions. Beyond merely listing songs that contain various types of chromatic harmony, the new page organizes information on the specific location and harmonic context of each contribution. Content from the original Wikipedia site is gradually being added to the new page, and in time, it is my hope that many other instructors and students will contribute to, and monitor the quality, of the new wiki.

Open source content can grow quickly, and while this is exciting, it comes with the danger of quickly deteriorating content quality. Throughout the process of moving the Anthology of Chromatic Harmony from Wikipedia to Wikiveristy, I discovered and

[8] A link to this resource may be found at the end of the manuscript.

removed a number of erroneous contributions. There are a number of ways to improve the quality of open source knowledge, but perhaps the most important is to continuously foster a culture of quality. Further, venues for open source content are evolving, and instructors should feel comfortable moving content to better venues; quality content will always have a home. Beyond Wikipedia, there are many excellent wiki venues for assembling open source content, and I urge the music community to work creatively and collaboratively within these venues towards the creation of new open source textbooks, anthologies, and repositories of educational materials. As open-source content evolves and improves, the onus will be on instructors to find the best "homes" for our collaborative resources.

In closing, consider the following question: If anyone can contribute to a wiki, why doesn't everybody do it? Perhaps one major hesitation stems from a contributor's basic need to feel like a credible source. Throughout this project, when students ask for my opinion regarding the presence of a given theoretical structure within a certain piece, I have the pleasure of informing them that they are capable of making educated theoretical claims on their own, just like any credible music theorist. At the heart of "doing" music theory is formulating critical interpretations of music. I believe it is our role as theory pedagogues to prepare theory students to engage in the "dangers and delights" of musical speculation, and to instill in them the confidence to share their speculations beyond the theory classroom. One way that these goals can be achieved is through open-content projects, such as the one described above, which provides an opportunity for music theory students to experience the "dangers and delights" of being a music theorist.

Bibliography

Anderson, Lorin W., David R. Krathwohl, Peter W. Airasian, Kathleen A. Cruikshank, Richard E. Mayer, Paul R. Pintrich, James Raths, and Merlin C. Wittrock. "A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives, abridged edition." *White Plains, NY: Longman* (2001).

Agawu, Kofi. "Ambiguity in tonal music: a preliminary study." *Theory, Analysis, and Meaning in Music* (1994): 86-107.

Bain, Ken. *What the Best College Teachers Do*. Harvard University Press, 2011.

Bowen, José Antonio. *Teaching Naked: How Moving Technology Out of Your College Classroom will Improve Student Learning*. John Wiley & Sons, 2012.

Rogers, Michael R. *Teaching Approaches in Music Theory: An Overview of Pedagogical Philosophies*. SIU Press, 2004.

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[i] The reader is encouraged to visit the project Wiki page via the following link: https://en.wikiversity.org/wiki/Anthology_of_Chromatic_Harmony