

Music and Algorithms Seminar 1 – Alice Eldridge

Examples of 'prescriptive' algorithms:

Musikalishes Würfelspiel

In the late 1700s, some composers and musicians enjoyed creating dice games which would allow people to compose different melodies by randomly putting together musical fragments from an array of choices. The most famous of these is the Musikalishes Würfelspiel, often attributed to Mozart (although actually it was published a year after his death, and some have suggested that it was a publicity stunt).

How the game works.

In this version of the game, there are 4 choices for each of the 16 bars of a Viennese minuet (see handout), with the exception of the first and second time bars (which are set) and the final bar (for which there are only 2 choices). By Using a dice, spinner or other non-biased selection procedure to select randomly amongst the alternatives for each bar, the player can generate a wide variety of different melodies. The choices for each bar are designed in such a way that no matter which combination of bars you end up with, the result is a pleasing melody that satisfies all the harmonic and compositional norms of a Viennese minuet of the late 1700's.

Some things to think about:

- Where does the creative skill lie ?
- How satisfying is this for a non-musician/ an accomplished composer ?

iTunes signature Maker -<http://www.jasonfreeman.net/itsm/>

NOT intended as a means of composition:

People often ask me what music I listen to, and I find it difficult to describe my enormous music collection in just a few sentences. So I created iTSM to answer in sound a question I cannot answer in words.

iTSM selects a small number of your "favorite" tracks based on some simple selection criteria, such as the number of times you have played them or the rating you have assigned them. Then it analyzes the audio content of these files, combining a small bit of each of them to create the signature.

Maybe you'll load your iTunes signature onto your iPod, e-mail it to some friends, share it in our signature gallery, or stick it on your home page. Maybe it will help you gauge your compatibility with your next blind date: "She seems nice enough, but her iTunes signature is just so atonal! Should I go with my heart or with my ear?" Or maybe an iTunes signature will figure prominently into a political attack ad: "If you're mad at him for raising your taxes, polluting our environment, and cutting the education budget, just wait until you hear the music he listens to..."

Some things to think about:

- How do you think this is working ?
- Could this be used as a composition algorithm ?
- How could you adapt it to give the user more freedom ?