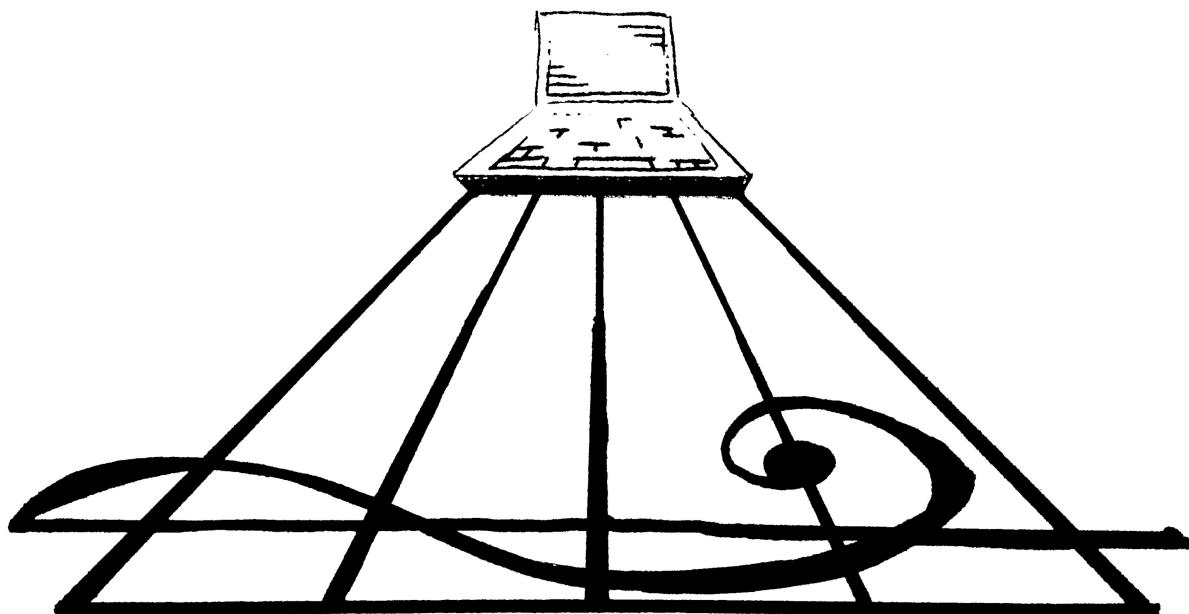


*The Society for the Preservation and Promotion
of Machine Folk Music (v1.1)*



The *Official* Tunebook
with Interesting Information about a Fascinating Hobby

The Society for the Preservation and Promotion of Machine Folk Music (v1.1) was established in 2020, with support of the project, *Music at the Frontiers of Artificial Creativity and Criticism (MUSAiC)* (European Research Council Consolidator grant ERC-2019-COG, No. 864189), Bob L. T. Sturm presiding.

May 1, 2021

Praise for Machine Folk and The Society

- “I like to think that music comes from somewhere that’s living. Otherwise it’s... something else. Algorithms, computers - they’ll always be predictable. Not so much humans. ... My concern is that some people, somewhere and sometime, may consider one or more of these tunes - maybe all of them? - to be actual traditional tunes.” *Ergo*
- “The most useless piece of shit ever. Fuck off with that crap.” *fuckthat*
- “I don’t know whether to applaud or cry.” *John K.*
- “Machines aren’t creative as this proves.” *tz1*
- “Why. Machine art is not human therefore just a soulless imitation. If it imitates it cannot create anything new.” *worddust, Woodbridge*
- “Totally lifeless without warmth. Mind you much human tuneless junk that passes for music today isn’t much better.” *Mikeyt1941, London*
- “Isn’t music robotic enough these days?” *rocksnoop1, Dover*
- “Basically it’s crude turntablism without the sense of a musician familiar with the significance of various motifs & phrases.” *AB*
- “Jeez. A computer that noodles. That’s all we need.” *Mark M.*
- “This sounds like evil devil work.” *Jerone, LoM*
- “Snacka om själ-lösa låtar... MUSIK.. Speciellt folksmåusic.. Ska komma fram via upplevelser, traditioners djupa prägling. Upplevelser osv. Där människan är fokus, där folksmåusicen präglar det traditionella kulturella livet. ... När jag ser sådant här blir jag antingen förbannad eller skitskarp.” *Stefan J.*
- “Let’s make all humans redundant, brilliant! Has everybody really lost their soul?!” *pen, somewhere*
- “This takes away possibilities for real musicians to compose Music and earn a living!” *Per S.*
- “Correct me if I’m wrong, but isn’t music supposed to come from the soul. Isn’t it an expression of our humanity aren’t the sentiments expressed supposed to touch us and make us empathise with the song writer/singer. AI generated music does none of those things, therefore it’s pointless. It’s like comparing a machine made chair to a Chippendale. Yes you can sit on both of them, but the beauty of a handmade, beautifully crafted chair cannot be compared to a mass produced conveyor belt item.” *babs, Newcastle*
- “I think there is still some hope for humankind... Truthfully, if I learnt a tune by mistake that was written by a computer I would drop it. There are too many great tunes with a human story. A tune named “Johnny O’Leary’s” will have at least some connection - how it got from there to here through people. A tune called “Macbook Pro’s” just doesn’t have the same allure.” *bogman*
- “This computerized AI is just so non musically untalented lazy nerds can infiltrate the world of true musicians who love, created, and write the music from the joy, hurt, and life emanating from their hearts.” *Radar Also, Hemet*

- “I would suggest confining your computerised efforts to the archives of whichever University you are at.” *anonymous*
- “Can we not technologically tamper with everything that is good and pure in this world? A computer farting out generated tunes in some academic lab somewhere is the beginning of the end. ... The sooner this experiment is confined to an anonymous university archive the better.” *anonymous*
- “It’s a niche interest within a niche interest that will go under the radar of all but those most interested in the area and won’t have the slightest effect on the lives of the vast majority of us. It’s probably less useful in practical terms than building algorithms to direct robot vacuum cleaners or self-driving cars, but why knock it as a field of study? Most career academics that I know are deeply buried in some very esoteric trench in their field.” *Namloc*
- “There are loads of crap tunes written by humans and there will continue to be (as long as there are people like me) in perpetuity. I’d rather play a great tune written by a computer than a crap one I wrote myself.” *Conán M.*

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Chapter 1

Introduction

This growing curated collection contains tunes arising from creative partnerships with *music Ai*. Some Ai are trained on over 23,000 music transcriptions contributed by users of thesession.org, which is focused on Irish traditional dance music. These are named *folk-rnn* v1, v2 and v3. The different versions arise from different formats of the training material: v1 models character sequences in a single document, including tune titles; v2 models tokenized transcriptions that have been transposed to have a root of C; v3 uses a slightly different data representation from v2. Another Ai, *folk-rnn* (v. Swedish), was tuned using 4,000 transcriptions of Scandinavian folk music, collected from folkwiki.se. Other variants of these systems have also been produced, e.g., using different sampling techniques.

Each transcription herein revealed itself to the world through a computational procedure involving on average one billion operations. They are not purely products of a cold and lifeless statistical algorithm attempting to imitate patterns it has learned from existing data — some human operator is needed to “flip the switch”, and then to curate from the materials generated. Often the Ai generates poor results. Sometimes they are clearly derivative. In a few cases, they can be unusual and wonderful. The challenge is to find these “diamonds” in the raw materials. Then to bring them to life without ever heard them played before by a master musician. Even so, there remains the problem of a tune existing without any trace whatsoever in a collective memory of a community of practitioners. Their context is digital vapor.

Some believe in a purity or divinity of Art, and the superiority of humans in making Art. Involving a machine in Art can be seen as a direct challenge to this purity, not to mention a demotion of the human to machine. This argument elevates the tangible product over the intangible experience, and submits to a rather narrow and mystical notion of creating Art — a human activity, full stop. It is an activity that occurs between our ears in our sensations, thoughts and memories. Art is not contained on the page or in the frame. It does not stop when we leave the concert hall or the museum. Art is entirely steeped in being human. The human decision to involve technology in that activity is only that: the suspension of pigment in egg yolk to make it stick to a surface; the suspension of pigment in slow-drying oil to make it blend and layer in ways superior to egg tempura; the suspension of pigment in plastic medium to make it sculptable and fast drying; the use of a coarse horse hair brush to paint several strands of hair at once; the use of a palette knife to make sharp straight edges; the use of the principles of geometry and perspective to create trompe-l’oeil. How is involving Ai in creating music any different? Computers have been able to beat the best human chess players for decades, but for some reason people are still playing and studying chess. Why?

One pitfall important to avoid when it comes to discussing Ai in the Arts is this: thinking that the terms “intelligence” and “learning” mean what they commonly mean when it comes to people. These are “suitcase” words with several meanings that can be confused, and must be unpacked. In the context of Ai, “intelligence” is a quite brittle thing that bears very little resemblance to human intelligence. And “learning” is merely the prosaic computation of numbers in an algorithm that represent probabilistic relationships in data. Falling into this trap can give power to the Ai that it does not actually possess, leading to dystopian fantasies. To claim Ai will destroy music is the same as claiming, e.g., photography will destroy painting, perspective drawing will destroy narrative, and so on. Yes, the future is filled with

composers and painters, photographers and writers . . . The only real threats to the Arts are the lack of value for it in a society, and proscriptions of practice due to pressures economic, political, religious, etc.

1.1 Inspirations

1. Michael Snow, “The Last LP: Unique Last Recordings Of The Music Of Ancient Cultures”
2. Jennifer Walshe’s [The Avant Garde Archive of Ireland \(aisteach.org\)](#)
3. Jennifer Walshe, “Ghosts of the Hidden Layer” seminar at Darmstädter Ferienkurse, July 25 2018
4. League of Automatic Music Composers
5. Hobsbawm and Ranger (eds), “The Invention of Tradition”, Cambridge University Press, 2012.

1.2 Key References

1. The Society for the Preservation and Promotion of Machine Folk Music (v1.1) facebook group
2. Tunebook repository
3. [folkrnn.org](#)
4. [themachinefolksession.org](#)
5. The computer code and data behind folk-rnn
6. The folk-rnn Session Books (34 volumes of 100,000 transcriptions)
7. “Let’s Have Another Gan Ainm”: An experimental album of Irish traditional music and computer-generated tunes (Technical Report)
8. Sturm et al., “Music transcription modelling and composition using deep learning”, in Proc. 1st Conf. Computer Simulation of Musical Creativity, July 2016.
9. Sturm and Ben-Tal, “Taking the Models back to Music Practice: Evaluating Generative Transcription Models built using Deep Learning,” J. Creative Music Systems 2(1) Sep. 2017.
10. Sturm, “What do these 5,599,881 parameters mean? An analysis of a specific LSTM music transcription model, starting with the 70,281 parameters of its softmax layer,” in Proc. Music Metacreation workshop of ICCC, 2018.
11. Sturm et al. “Machine learning research that matters for music creation: A case study,” J. New Music Research 48(1):36-55, 2018.
12. Holzapfel, Sturm, and Coeckelbergh, “Ethical dimensions of music information retrieval technology,” Trans. Int. Soc. Music Information Retrieval 1(1):44–55, 2018.
13. Sturm et al., “Artificial intelligence and music: Open questions of copyright law and engineering praxis,” MDPI Arts 8(3), 2019.
14. Hallström et al., “From Jigs and Reels to Schottisar och Polskor: Generating Scandinavian-like Folk Music with Deep Recurrent Networks,” in Proc. Sound & Music Computing Conf., 2019.
15. Ben-Tal, Harris, and Sturm, “How music AI is useful: Engagements with composers, performers, and audiences,” Leonardo Music Journal (2020).

1.3 Appearances of Members of The Society

1. Feb 26 2020 at the Austrian Research Institute for Artificial Intelligence, Vienna
2. Mar 12 2020 at “AI for Humanity and Society 2020”, Stockholm (cancelled due to COVID-19, but rescheduled Nov. 18 2020)
3. Sep 11 2020 at Ars Electronica 2020
4. Oct 19 2020 at The 2020 Joint Conference on AI Music Creativity
5. Feb 9 2021 AI for Content Creation, European Broadcasting Union
6. Apr 23 2021 Umeå Humanities Lab
7. May 6 2021 20th International Conference on Autonomous Agents and Multiagent Systems

1.4 Frequently Asked Questions

1. “What is *machine folk*?”
Music that springs from human and machine (Ai) partnership, played on traditional instruments as if such a thing has been done for centuries. Other terms for this kind of music are: *faux folk* and *trAditional music*.
2. “Why *machine folk*? ”
Why not?
3. “I mean, why not play *real* traditional music?”
Let’s!
4. “Do we really need to involve Ai in music?”
No, in the same way that we don’t really need to involve pianos.
5. “Why do you have a lower-case ‘i’ when you write ‘Ai’”?
To highlight the fact that its “intelligence” is questionable.
6. “Isn’t music robotic enough these days?”
What’s wrong with “robotic”?
7. “I mean, isn’t music supposed to come from the soul? Isn’t it an expression of our humanity? Aren’t the sentiments expressed supposed to touch us and make us empathize with the composer?”
Who says those things?
8. “Have you lost your soul?”
Not that we are aware of; or, maybe yes? Let’s ask the machine to generate a tune about it.
9. “Can we not technologically tamper with everything that is good and pure in this world?”
Technological tampering is how musical instruments are created.
10. “Are you working to replace human composers and musicians?”
No. Humans are an essential part of *machine folk*, from the programming and training of the Ai, to the curation of the generated music and its performance in the real world on real instruments.
11. “Won’t this technology lead to replacing human composers and musicians?”
If something can be automated, it will be automated. Regardless if an Ai can compose music, humans will continue to compose.
12. “Who owns these tunes?”
The meaningfulness of this question is not clear in a society that has decided it’s acceptable to not pay for music.¹ Regardless, traditional music sits uncomfortably with such notions because it is much more like a public park for all to enjoy than private property for one to rent. The output of

¹Compliments to Holly Herndon.

folk-rnn might be considered more like the public park – perhaps a little derelict with some broken glass and rusty nails laying around. No place for a picnic really; but still, many of its nooks and crannies are wonderful to visit and explore.

13. “How will this help traditional music?”

Does traditional music need help?

14. “OK. How will this harm traditional music?”

Likely not one bit. These machines are just parlour tricks. But it is important to keep watch for unintended consequences.

Chapter 2

Tunes of the Society

This chapter presents the tunes of the Society categorized by rhythm. When a tune involves some modification from the transcription produced by the machine, the original is rendered as small notation.

2.1 Jig

Aloe Vera's

folk-rnn (v2) + Sturm



The musical score consists of two staves of music notation in G major, 8/8 time. The notation is composed of eighth and sixteenth notes, typical of a jig. The first staff begins with a quarter note followed by a eighth-note pair. The second staff begins with a eighth-note pair followed by a quarter note. Both staves feature a mix of eighth and sixteenth note patterns throughout.



When Society Member Näsström shared the photo at left with the Society, Member Sturm decided to ask folk-rnn (v2) to compose a jig about it. The output, seen in small notation, was then modified a bit by Sturm to create the jig. More information about this particular transcription is [here](#). One of Sturm's Irish accordion teachers says this tune sounds like the kind of new jigs created by contemporary Irish composers, e.g., Mícheál Ó Súilleabháin. Daniel Näsström (flute) and Sturm (*Bosca Dubh*): <https://youtu.be/jVJEEc90sxo>

The Boys Of Ballinaburre

folk-rnn (v2, with beamsearch n=2)

This tune was learned from folk-rnn (v2), which generated it under a particular sampling regimen. More information [here](#). The title was generated by folk-rnn (v1) for a different tune, but applied to this tune because Society Member Sturm thinks it fits. There's a claim that the turn (B-part) resembles that of a traditional Irish tune named, "The Thatched Cabin". That particular tune does not appear in the training data of this folk-rnn model. One of Sturm's Irish accordion teachers says this tune sounds like an old jig, and is ready to be learned as is. Sturm (*Bosca Dubh*): https://youtu.be/qc0ZZpfSM_E

Gallagher's Favourite

folk-rnn (v3) + Sturm

This tune appears in the [folk-rnn \(v3\) Session Book, Vol. 3 of 4](#) (#5712). The title was generated by folk-rnn (v1) for a different tune, but applied to this tune because Society Member Sturm thinks it fits. Only one slight change is made to the last measure. One of Sturm's Irish accordion teachers says this sounds like a classic jig. Sturm (*Bosca Dubh*): <https://youtu.be/y6-7bLIJS9g>

Cleaper's Wheel

folk-rnn (v2) + Sturm

The musical score for "Cleaper's Wheel" is presented in two parts, each consisting of two measures. The key signature is G major (no sharps or flats). The time signature is 8/8. The notation uses standard musical symbols like eighth notes and sixteenth notes. Measure 1 of both parts begins with eighth-note pairs. Measure 2 of both parts begins with eighth-note pairs. The first part concludes with a repeat sign and a double bar line. The second part begins with eighth-note pairs. Measure 1 of the second part concludes with a repeat sign and a double bar line. Measure 2 of the second part concludes with a final double bar line.

The Society members Larsson, Kmoch and Sturm found this tune together while browsing the [Endless MF Session website \(synthesized recording\)](#). The title was generated by folk-rnn (v1) for a different tune, but applied to this tune because Society Member Sturm thinks it fits. It appears in the [folk-rnn \(v2\) Session Book, Vol. 2 of 10](#). One of Sturm's Irish accordion teachers pointed out that the first part of the tune closely resembles the jig "Old Man Dillon", but the second part is completely unique and wonderful. Society Member Sturm thus modified the first part.

The A.i. Man

folk-rnn (v2, w/ beamsearch n=2)

The musical score for "The A.i. Man" is presented in two parts, each consisting of two measures. The key signature is G major (no sharps or flats). The time signature is 8/8. The notation uses standard musical symbols like eighth notes and sixteenth notes. Measure 1 of both parts begins with eighth-note pairs. Measure 2 of both parts begins with eighth-note pairs. The first part concludes with a repeat sign and a double bar line. The second part begins with eighth-note pairs. Measure 1 of the second part concludes with a repeat sign and a double bar line. Measure 2 of the second part concludes with a final double bar line.

This jig won the first place prize at the [Ai Music Generation Challenge 2020](#). The title was given to it by judge Paudie O'Connor. The jig was generated by folk-rnn (v2), sampled with beamsearch (n=2), and selected by an artificial critic comparing the outputs with O'Neill's 365 double jigs in the "1001" collection. In the 10001 jigs generated by the system and selected by the critic, it appears as #8091. Sturm (*Bosca Dubh*): <https://youtu.be/yhPuYbhr7Y4>

Wolden Sailor

folk-rnn (v2) + Sturm

This tune appears in the [folk-rnn \(v2\) Session Book, Vol. 7 of 10](#) (#18727). The title was generated by folk-rnn (v1) for a different tune, but applied to this tune because Society Member Sturm thinks it fits. Sturm (*Bosca Dubh*): <https://youtu.be/t7yMv2B6MNQ>

The Rellus On The Turnpipe

folk-rnn (v1)

This delicate jig was generated by folk-rnn (v1), which also titled it. It appears in the [folk-rnn \(v1\) Session Book, Vol. 8 of 20](#). Sturm (*Bosca Dubh*): <https://youtu.be/JrUa-RSpN78>

The Lonesome Fairy

folk-rnn (v2)

This jig won the second place prize at the [AI Music Generation Challenge 2020](#). The title was given to it by judge Jennikel Andersson. The jig was generated by folk-rnn (v2). In the 10001 jigs generated by the system, it appears as #7983. Sturm (*Bosca Dubh*): <https://youtu.be/FVIaI7VbV1A>

The Waters Of Heanny

folk-rnn (v1) + Sturm

This tune and its title appears in the [folk-rnn \(v1\) Session Book, Vol. 3 of 20](#). Society Member Sturm changed a few parts to make it more “watery.” The original output of the algorithm is shown in smaller notation. Sturm (*Bosca Dubh*): https://youtu.be/QehkSmr0J_4

My Ove Wore A Da'

folk-rnn (v2, w/ beamsearch n=2) + Sturm

This tune was learned from folk-rnn (v2) with beamsearch (n=2). In the 10001 jigs generated by the system and selected by the critic, it appears as #18. The title was applied to this tune by a system taught to title tunes. Sturm’s accordion teacher agrees that it’s a nice melody, and plays well as a single jig. Sturm (*Bosca Dubh*): <https://youtu.be/SU2jPwHiDfk>

The Teelin Brood

folk-rnn (v2) + Sturm

This jig generated by folk-rnn (v2) was selected by an artificial critic tuned to the likes of Society Member Sturm — the same critic that suggested the hornpipe “Fredrik’s Christmas Critic” on page ???. The title was generated by folk-rnn (v1) for a different tune but Society Member Sturm believes it fits this one too. Sturm (*Bosca Dubh*): <https://youtu.be/q6g9mX0IU2I>

Happy to Jeer

folk-rnn (v2) + Sturm

This jig, generated by folk-rnn (v2), was highly rated at the [AI Music Generation Challenge 2020](#), but did not win a prize. The title was applied to this tune by another system taught to title tunes. In the 10001 jigs generated by the system and selected by the critic, it appears as #6021. Sturm’s Irish accordion teacher says it sounds like a classic jig used for teaching dancing. Sturm (*Bosca Dubh*), Carla Sturm & Shoogee: <https://youtu.be/FVacJEMReRA>

Garrett Farmor's

folk-rnn (v2)

folk-rnn (v2)

This tune was learned from folk-rnn (v2), and appears as #2857 in the [folk-rnn \(v2\) Session Book, Vol. 1 of 10](#). More information on this tune can be found [here](#). The title was generated by folk-rnn (v1) for a different tune, but applied to this tune because Society Member Sturm thinks it fits. One of Sturm's Irish accordion teachers says this tune is *not* good – actually, “it’s not even music” – which motivates Sturm to play it often because he strongly believes otherwise. Sturm (*Bosca Dubh*): <https://youtu.be/4ldA8ub35-g>

2.2 Reel

Aloe Vera's

folk-rnn (v2) + Sturm



The basic idea of this reel were generated by folk-rnn (v2) seeded with **dcAB GABG** (but transposed to C major), which are the first eight pitches of [Aloe Vera's](#) (jig). The impetus of the tune came when Society Member Näsström shared the photo at left with the Society, saying, “Mother Aloe Vera just told me she want a reel.” Sturm (*Bosca Dubh*): <https://youtu.be/Xb8RC6GgpLM>

Swing Swang Swung

folk-rnn (v2)

The musical score for "Swing Swang Swung" is presented in 4/4 time and G major. It features four staves of music. The first two staves are identical, followed by a repeat sign. The third staff begins with a different melodic line, and the fourth staff continues this line. Measure 10 contains two endings: ending 1 leads back to the first section, while ending 2 concludes the piece.

This tune was learned from folk-rnn (v2). The opening bears some similarity to “Swing Swang” [played by Na Draíodóirí](#) (a tune that is in the training data of this model) — thus inspiring the title. More information about this particular transcription is [here](#). One of Sturm’s Irish accordion teachers says this is a good tune, and sounds like the kind of tunes he likes. Sturm (*Bosca Dubh*): https://youtu.be/1Y0deGgB_WY

Roaring Sillow

folk-rnn (v2, with beamsearch n=4) + Sturm

The musical score for "Roaring Sillow" is presented in 4/4 time and G major. It features eight staves of music. The first four staves are identical, followed by a repeat sign. The fifth staff begins with a different melodic line, and the sixth staff continues this line. The seventh and eighth staves conclude the piece.

This tune was created using folk-rnn v2 with beamsearch (n=4). It appears in the book chapter, Sturm and Ben-Tal (2021). Handbook of Artificial Intelligence for Music, chapter Folk the Algorithms: (Mis)Applying Artificial Intelligence to Folk Music. Springer. The title was generated by folk-rnn (v1) for a different tune, but applied to this tune because Society Member Sturm thinks it fits. Sturm (*Bosca Dubh*): <https://youtu.be/dNIIrhs-rhA>

Mickey Fitternaly's

folk-rnn (v2, with beamsearch n=2)

The musical score consists of four staves of music in G major, 4/4 time. The first three staves are in common time, while the fourth staff begins in common time and ends in 2/4 time. The music features various note patterns, including eighth and sixteenth notes, and includes several bar lines and repeat signs.

This reel was learned from folk-rnn (v2), which generated it under a particular sampling regimen. The title was generated by folk-rnn (v1) for a different tune, but applied to this tune because Society Member Sturm thinks it fits. More information [here](#). Society Member Sturm has slightly modified the last half of the sixth bar of the turn such that it repeats the 2nd bar of the turn. One of Sturm's Irish accordion teachers says this sounds like the kind of tunes he likes. Sturm (*Bosca Dubh*): <https://youtu.be/Ewsvk6fy9Yg>

Close Encounters of the Reel Kind

folk-rnn (v2) + Sturm

The musical score consists of eight staves of music in G major, 4/4 time. The score is divided into two sections, labeled '1' and '2', indicated by brackets above the music. The first section contains four staves, and the second section contains four staves. The music features eighth and sixteenth-note patterns, with some staves ending in 2/4 time.

This tune was co-created with folk-rnn (v2). The system was primed with M:4/4 K:Cmaj d e c C G 2, which is the famous musical message to the extraterrestrials in the movie "Close Encounters of the Third Kind." Proper performance of this tune dictates that the musicians look skyward for any "signs". Sturm (*Bosca Dubh*): https://youtu.be/ZNOFi_oyu44

The dog ate a raisin so call the vet

folk-rnn (v2) + Sturm

The musical score is composed of six staves of music in G major (one sharp) and 4/4 time. The music consists of eighth and sixteenth-note patterns. Measure 1 ends with a repeat sign, leading into measure 2. Measure 2 includes measure numbers 1 and 2 above the staff, with a '3' below the staff indicating a repeat.



This reel generated by folk-rnn (v2) was selected by an artificial critic tuned to the likes of Society Member Sturm. The title refers to Sturm's dog Shoogee, who one morning ate a raisin, precipitating a quick visit to the vet whereupon said raisin was "extracted" (inset of pictured). Sturm (*Bosca Dubh*): <https://youtu.be/1PbTqFVAY64>

Shoogee Take Another Shoe

folk-rnn (v2) + Sturm

1 2

1 2

3

3

This reel generated by folk-rnn (v2) was selected by “Fredrik’s critic” tuned to the likes of Society Member Sturm. The title refers to Sturm’s dog Shoogee, who likes to run off with shoes. Sturm (*Bosca Dubh*): <https://youtu.be/ICN17681QwM>

2.3 Hornpipe

Ms. Riddles' Hornpipe

folk-rnn (v2) + Sturm



Society member Sturm got this hornpipe from folk-rnn (v2) when he asked it for a tune about the spider living in his bathroom – whom he named “Ms. Riddles”. For one wonderful week, the silverfish in his bathroom disappeared thanks to Ms. Riddles. To show his gratitude, he caught and froze a fly, and gave it to Ms. Riddles. She seemed to enjoy eating it, and used it to decorate her porch, along with what appears to be the King of the Silverfish. Ms. Riddles is long gone now, but her memory lives on in this wonderful hornpipe. Sturm (*Bosca Dubh*): <https://youtu.be/V2EiFb89koE>

The Liddle Shepe

folk-rnn (v2, with beamsearch n=2)

This lovely hornpipe was learned from folk-rnn (v2), which generated it under a particular sampling regimen. The title was generated by folk-rnn (v1) for a different tune, but applied to this tune because Society Member Sturm thinks it fits. Society member Näsström says this tune makes him happy. More information [here](#). One of Sturm's Irish accordion teachers says this tune is more like a strathspey or highland than a hornpipe — the melody has phrases that sound too short for a hornpipe. Sturm (*The Black Box*): https://youtu.be/dvri_8zTXiI

Fredrik's Christmas Critic

folk-rnn (v2) + Sturm

This hornpipe was selected by an artificial critic choosing from tunes generated by folk-rnn (v2). The artificial critic was built by a student supervised by Society Member Sturm in the Fall 2020, named Fredrik. He sent this tune as an example of a “high scoring tune”, according to said critic. Sturm fell in love with it pretty quickly. More like this please, dear artificial critic! Sturm (*Bosca Dubh*): <https://youtu.be/Igwv5sgGlwU>

Sorpike's Cat

folk-rnn (v1) + Sturm

The musical score for "Sorpike's Cat" is a hornpipe in G major, 4/4 time. It consists of six staves of music. The first two staves show a repeating pattern of eighth-note pairs. The third staff begins with a fermata over a note, followed by a sequence of eighth notes. The fourth staff continues this pattern. The fifth staff starts with a fermata over a note, followed by a sequence of eighth notes. The sixth staff concludes the piece. Measure numbers 1, 2, and 3 are indicated above certain measures.

This hornpipe was generated by folk-rnn (v1), and appears in the [folk-rnn \(v1\) Session Book, Vol. 8 of 20](#). Sturm (*Bosca Dubh*): <https://youtu.be/uSPDnew-7sY>

2.4 Polka

Göran's sick at home and Pelle's just cut his finger

Sturm, Näsström + folk-rnn (v2)

This tune was co-created with folk-rnn (v2), seeding it with two ideas: one for the first part provided by Society member Sturm, and one for the second part provided by Society member Näsström. They wanted to write a polka for their two friends Göran and Pelle, with whom they play and enjoy Irish music. Göran couldn't make a session because he was sick, and Pelle had to cancel because he had cut his finger. The system was seeded with |:c/2d/2e dc | BG B2 to create first part, and then |:c/2d/2edc |BGB2 |c/2d/2e/2d/2cd |ed/2c/2BG | cd/2e/2dc |BGBB |c2B/2c/2d |c2c2 :| |:c'b gc' | bg to create second part. Sturm (*Bosca Dubh*): <https://youtu.be/plZMHUDsmr0>

William Murphy's

folk-rnn (v1) + Sturm

This fantastic polka was learned from folk-rnn (v1), which also titled it. It appears in the [folk-rnn \(v1\) Session Book, Vol. 3 of 20](#). The changes made come from suggestions by Sturm's Irish accordion teacher. Sturm (*Bosca Dubh*): <https://youtu.be/CEuCwmYz0Os>

Biggish Fiddle on a Smallish Chair

folk-rnn (v2) + Sturm

The musical score consists of two staves of music for a single instrument, likely a fiddle or violin. The notation is in 2/4 time and a major key. The first staff begins with a sixteenth-note upbeat followed by eighth-note pairs. The second staff continues with eighth-note pairs and includes a dynamic marking 'f' (fortissimo). Both staves feature various弓 (bowed) and strum (plucked) markings.

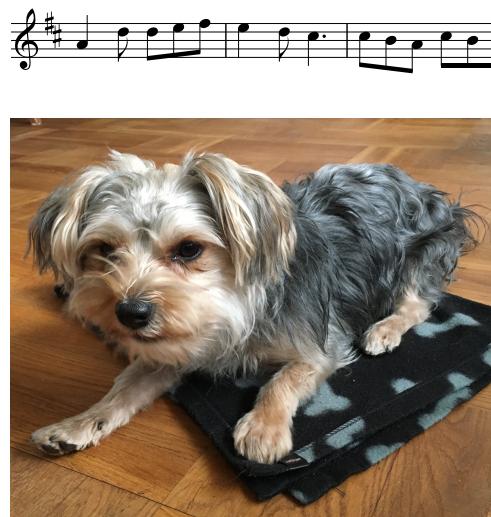


This polka was generated by folk-rnn (v2), but recommended by a critic tuned to the likes of Society member Sturm. The title comes from a photo Society member Näsström sent to Sturm (left). Sturm responded with a tune called, “Fiddle on a chair.” Näsström replied, “Since Aloe Vera was lazy and didn’t come up with a polka, the viola saw the opportunity!” Sturm replied, “Oh, then we will call it ‘Viola on a chair.’” Näsström replied, “I think a viola is a fiddle too, just a bigger one.” Sturm finally named the tune, “Biggish Fiddle on a Smallish Chair.” Since folk-rnn puts too many ideas into its polkas, Sturm adapted the B-part. Sturm (*Bosca Dubh*): <https://youtu.be/T1Dfsyn58mM>

2.5 Slide

The dog got a haircut and now looks like a sheep

folk-rnn (v2 w/ beamsearch n=2, beta=30) + Sturm



This slide comes from folk-rnn (v2, w/ beam search n=2, beta=30). It perfectly accompanies the odd haircut Society Member Shoogee received (pictured). The normal gal wasn't in, and her replacement did as best as she could, trimming everything but the body. With Shoogee's little short legs, she looks like a sheep. Sturm (*Bosca Dubh*): https://youtu.be/quOTM_bDLLI

2.6 Polska

Måndag på KTH

folk-rnn (v/ Swedish)

This polska was learned from folk-rnn (v/ Swedish), and titled by Society Member Sturm to fit the feels of being on campus on Monday mornings (pre-pandemic). More information [here](#). Sturm (*Bosca Dubh*): <https://youtu.be/LDPT7RIBwV8>

2.7 Piece

Why are you and your 5,599,881 parameters so hard to understand?

folk-rnn (v2)

This tune was learned from folk-rnn (v2). It is best played slowly. The title refers to difficulties in the investigation of how the Ai model is working. This tune made its first appearance in Society Member Sturm's paper, "What do these 5,599,881 parameters mean? An analysis of a specific LSTM music transcription model, starting with the 70,281 parameters of its softmax layer," in Proc. Music Metacreation workshop of the Int. Conf. Computational Creativity, 2018. One of Sturm's Irish accordion teachers says this tune sounds like a dramatic air that would be played by Tony MacMahon. Sturm (*The Black Box*): <https://youtu.be/tXmEvGwseuU>

De Själlösas Schottis

folk-rnn (v/ Swedish) + Sturm

This tune comes from material generated by the [Swedish version of folk-rnn](#). With the playing style of Society member Sturm, it is less than a waltz and more of a schottis. Sturm (*Bosca Dubh*): <https://youtu.be/WBfF6zFRdCo>

The Cuckoo's Wedding

folk-rnn (v1) + Sturm

Society members Mauritz, Kmoch and Sturm found this tune together while browsing the now deleted Endless folk-rnn Session website. It appears in the [folk-rnn \(v1\) Session Book, Vol. 1 of 20](#). Society member Sturm modified part to make it more celebratory. Sturm (*Bosca Dubh*) and Näsström (recorder): <https://youtu.be/Kmu6q3xMhK8>

Chapter 3

Sets

The following sets are recommended, but by no means required.

3.1 Jig sets

1. [Aloe Vera's](#), [The Boys of Ballinaburre](#), [Gallagher's Favourite](#)

3.2 Reel sets

1. [Mickey Fitternaly's](#), [Swing Swang Swung](#), [Aloe Vera's](#)

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