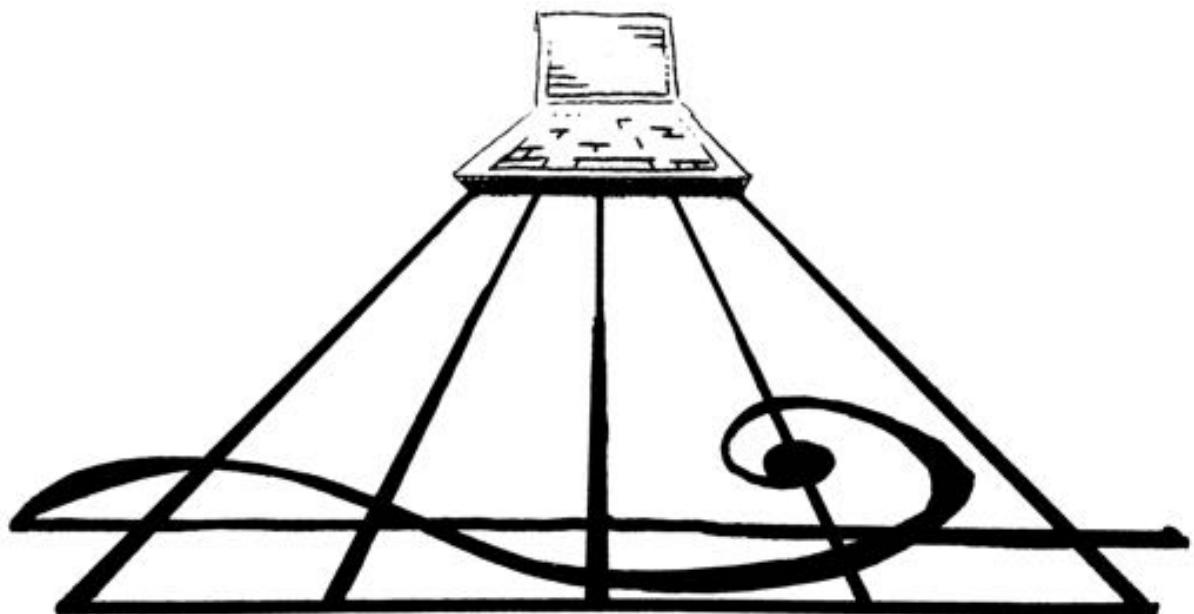


*The Society for the Preservation and Promotion
of Machine Folk Music (v1.1)*



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.

April 26, 2022

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*
- “Music is sinful, teach the robots about the Lord.” *praise the lord, Chippingham*
- “Snacka om själ-lösa låtar... MUSIK.. Speciellt folksånger fram via upplevelser, traditioners djupa prägling. Upplevelser osv. Där människan är fokus, där folksången 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.*
- “I feel strongly about this. Truth be told, I think building a machine that can compose billions of tunes is genuinely worthwhile. The thing is. This music isn’t being made by a machine. It is being made by people, and the computer is a new instrument. And all that the AI is doing is using human creation. Humans made music first. Humans explore sound and intervals and humans are the ones that create these complex structures. It is entirely human-made music that is where this AI music is coming from. The AI couldn’t make music without that human creation. All it is doing is uncovering patterns that humans have made, but might not have noticed. The AI is a tool of discovery; not a tool of usurping human creativity. It is highlighting what human creativity has done in the music the AI uses to learn. And more music can not be a bad thing, automated or not. Music can be both about the act of making and the act of listening. And if the experience is pleasant, it shouldn’t matter if beforehand I’m told whether it was made by a human or an algorithm that used human creations to rework musical patterns that humans made. The music would have been the same, whichever the case. And I think I would love, deeply, the ability to continually be delighted by new songs. But most importantly, this music is made by humans, in a very meaningful way. The only difference is that this way of making music is able to surprise us. I think this has immense, immeasurable value.” *Tristan Frodelius* *Tristan Frodelius*

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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 Polkskor: 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
8. **May 11 2021** KTH AI Society: Knowledge Sharing Session
9. **July 18 2021** 2nd Conference on AI Music Creativity

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! But currently only a few people in the entire world are playing folk music generated by machines, which makes it dangerously close to becoming extinct.
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? Also see in the present volume the “[love song](#)” to an algorithm, and the tunes “celebrating” a particular dog.
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 folk-rmn 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.

¹Compliments to Holly Herndon.

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 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)

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

1 2

1 2

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)

1 2

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. It was actually entered into a [competition of new folk music](#). Sturm (*Bosca Dubh*): <https://youtu.be/JrUa-RSpN78>

The Lonesome Fairy

A musical score for two staves in G major, 8/8 time. The top staff consists of six measures of music, and the bottom staff consists of five measures. The notation includes various note heads (solid, open, and dashed) and stems, with some notes having vertical bar lines through them. The score is labeled "folk-rnn (v2)" in the top right corner.

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/FViA17VbV1A>

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

The musical score for "The Teelin Brood" is presented in two staves. The top staff begins with a treble clef, a key signature of one sharp (G major), and an 8/8 time signature. The bottom staff follows the same key and time signature. Both staves feature a mix of eighth and sixteenth notes, with some rests and sharp signs indicating specific pitch requirements.

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 34. 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

The musical score for "Happy to Jeer" is composed of four staves of music. The first two staves begin with a treble clef, a key signature of one sharp (G major), and an 8/8 time signature. The third and fourth staves follow the same key and time signature. The music includes a variety of note patterns, such as eighth and sixteenth notes, and rests. Section markers labeled "1" and "2" are placed above the music to indicate different parts or sections of the piece.

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)

1 2

1 2

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>

Shoogee's Shenanigans

folk-rnn (v2) w/ beam search (n=2) + Sturm

1 2

1 2

1 2

folk-rnn (v2) w/ BS #1019

1 2

folk-rnn (v2) w/ BS #6665

1 2

This tune was assembled from two similar outputs generated by the folk-rnn (v2) system using beam search sampling. The title refers to Society member Sturm's dog Shoogee, who demonstrates said shenanigans. Sturm (*Bosca Dubh*): <https://youtu.be/1lUEXMB6qAg>

The Crisis of Proliferation

folk-rnn (v2) + Sturm

This jig was learned from folk-rnn (v2). The title references the phrase coined by Jacques Attali in his book, “Noise: The Political Economy of Music”, which Society member Sturm is trying to understand. Sturm (*Bosca Dubh*): <https://youtu.be/ii68getuylg>

The Humours Of Bringa

folk-rnn (v2) + Sturm

This jig was learned from folk-rnn (v2), and appears as #20 in the [10,001 submitted to the Ai Music Generation Challenge 2020](#). The title comes from another system, which learned to title tunes. Sturm (*The Black Box*): <https://youtu.be/y1lPpIELwYc>

Pfirst Dose of Pfizer

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

The musical score for 'Pfirst Dose of Pfizer' is presented in two staves. Both staves are in G major and 8/8 time. The first staff begins with a dotted half note followed by eighth-note pairs. The second staff begins with a quarter note followed by eighth-note pairs. The notation includes various note heads and stems, typical of traditional folk music notation.

This jig comes from folk-rnn (v2, w/ beam search n=2). Society member Sturm named the tune after he received his first vaccination against COVID-19 – the brand Pfizer. Sturm (*Bosca Dubh*): <https://youtu.be/KojB0wKqEHg>

The Sobieski Stuarts

folk-rnn (v2) + Sturm

The musical score for 'The Sobieski Stuarts' is presented in four staves. All staves are in G major and 8/8 time. The notation features various note heads and stems, with some sections enclosed in brackets labeled '1' and '2'.

This jig comes from folk-rnn (v2, w/ beam search n=2). Society member Sturm named the tune after a pair of brothers discussed in Hobsbawm and Ranger (eds), “The Invention of Tradition”, Cambridge University Press, 2012. The Sobieski Stuarts invented stories about their “royal lineage”, including their possession of an historical record of tartan tradition in Scotland. This tradition lives on today as if it has been around forever. Sturm (*The Black Box*): <https://youtu.be/yIBjebvwMzM>

58,104 to go

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

The sheet music for "58,104 to go" is composed of six staves of musical notation. The key signature is G major (one sharp). The time signature is 8/8. The music is divided into measures by vertical bar lines. Each measure ends with a double bar line and a repeat dot, indicating a repeating section. The notation includes various note heads (solid, hollow, and with a dash) and stems, with some notes having horizontal dashes through them.

This jig comes from folk-rnn (v2, w/ beam search n=2), and appears as no. 33135 on pg. 4,914 in the collection “[58,105 Irish Style Double Jigs](#)”. This is the first one to be performed from this collection, which leaves 58,104 left. The collection was generated as part of Society member Sturm’s paper, “An Artificial Critic of Irish Double Jigs”, in [Proc. AI Music Creativity Conference, Graz, 2021](#). Sturm (*The Black Box*): <https://youtu.be/Sipj4fCtImE>

There was a time you could get a monkey in the mail

folk-rnn (v2 w/ beam search) + Sturm

The sheet music for “There was a time you could get a monkey in the mail” is composed of six staves of musical notation. The key signature is G major (one sharp). The time signature is 8/8. The music is divided into measures by vertical bar lines. Each measure ends with a double bar line and a repeat dot, indicating a repeating section. The notation includes various note heads (solid, hollow, and with a dash) and stems, with some notes having horizontal dashes through them.

This jig comes from folk-rnn (v2, w/ beam search n=2), and appears as no. 25983 on pg. 3,863 in the collection “[58,105 Irish Style Double Jigs](#)”. Society member Sturm remembers seeing advertisements in old comic books where one could purchase a monkey by sending a few dollars to an address, and the monkey would arrive in the mail. The collection was generated as part of Society member Sturm’s paper, “An Artificial Critic of Irish Double Jigs”, in [Proc. AI Music Creativity Conference, Graz, 2021](#). Sturm (*The Black Box*): https://youtu.be/_fn0MW7cdnE

Shoogee and the Cows

folk-rnn (v2 w/ beam search) + Sturm

The musical score is composed of two staves of music in G major and 6/8 time. The top staff begins with a series of eighth-note pairs followed by grace notes. The bottom staff follows with a similar pattern of eighth-note pairs and grace notes. Measure numbers 1 and 2 are marked above the staves.



This jig comes from folk-rnn (v2 w/ beam search, n=2). Society member Sturm learned this tune while on holiday in Djursvik, Sweden (which is between Kalmar and Karlskrona). He felt that it nicely describes the tension and amusement his dog Shoogee showed upon meeting her first herd of cows (pictured). Sturm (*The Black Box*): <https://youtu.be/jbmRw6N0SCk>

Djursvik Semester

folk-rnn (v2) + Sturm

This jig comes from folk-rnn (v2), and was selected by an artificial critic tuned to the likes of Society Member Sturm. Society member Sturm learned this tune while on holiday in Djursvik, Sweden (which is between Kalmar and Karlskrona). It is pure dance music. Sturm (*The Black Box*): <https://youtu.be/0-u5BULdP3s>

The Irish Show

folk-rnn (v1) + Sturm

This jig comes from folk-rnn (v1), and appears in *The folk-rnn (v1) Session Book Vol. 13 of 20*. The system created the title. Society member Sturm has made a few changes to the output. Sturm (*The Black Box*): https://youtu.be/81iBM2i_b6Y

Father's Fez

folk-rnn (v2, w/ beam search) + Sturm

The musical score for "Father's Fez" is presented in four staves of G major and 8/8 time. Each staff begins with a treble clef and a key signature of one sharp. The music is composed of eighth and sixteenth-note patterns, with several rests interspersed throughout the measures.

This jig comes from folk-rnn (v2, w/ beam search n=2), and appears as no. 2294 on pg. 351 in the collection “[58,105 Irish Style Double Jigs](#)”. Sturm named this tune after finding his father’s fez (pictured on said father at left) while cleaning out his deceased parents’ home. Sturm (*The Black Box*): https://youtu.be/uUqOPlw_WlM



The New Kid

Tradformer + Sturm

The musical score for 'The New Kid' is presented in two staves of music notation. The first staff begins with a quarter note followed by eighth-note pairs. The second staff begins with a quarter note followed by eighth-note pairs. Both staves continue with similar patterns of eighth-note pairs and sixteenth-note pairs.

This jig comes from Tradformer — a Transformer architecture trained on the same data as folk-rnn (v2) created by Society Member Casini. It was found by Society Member Sturm in a batch of output generated by Casini's model and promoted as a good tune. Sturm (*The Black Box*), Casini and Amerotti: https://youtu.be/uUqOPlw_WlM

The Teetering Magpie

Tradformer + Sturm

The musical score for 'The Teetering Magpie' is presented in four staves of music notation. The first staff begins with a quarter note followed by eighth-note pairs. The second staff begins with a quarter note followed by eighth-note pairs. The third staff begins with a quarter note followed by eighth-note pairs. The fourth staff begins with a quarter note followed by eighth-note pairs. The score includes two endings, labeled '1' and '2', indicated by brackets above the music.

This jig comes from the same system that created [The New Kid](#). Society Member Casini identified the tune as a fun one to play, and gave the tune its name. Sturm (*The Black Box*), Casini and Amerotti: <https://youtu.be/5gLOSWRElGA>

The Playing Kats

folk-rnn (v2) + Sturm

The score for 'The Playing Kats' is a two-staff musical composition in G major and 8/8 time. The first staff contains a series of eighth-note patterns. The second staff starts with a measure labeled '1' and continues with a measure labeled '2'. The notation includes various note heads and stems, with some notes having vertical lines extending downwards.

This jig comes from folk-rnn (v2, w/ beam search n=2), and appears as no. 35 on pg. 6 in the collection “[58,105 Irish Style Double Jigs](#)”. Society Member Amerotti identified the tune as a fun one to play, and gave the tune its name after his cats. Sturm (*The Black Box*), Näsström, Amerotti, Casini, and Cros Vila: <https://youtu.be/5gLOSWRE1GA>

The Cunning Storm

folk-rnn (v1) + Sturm

The score for 'The Cunning Storm' is a two-staff musical composition in G major and 8/8 time. The first staff contains a series of eighth-note patterns. The second staff starts with a measure labeled '1' and continues with a measure labeled '2'. The notation includes various note heads and stems, with some notes having vertical lines extending downwards.

This jig was created and titled by folk-rnn (v1), and appears in [the folk-rnn \(v1\) Session Books, Vol. 4 of 10](#). Sturm (*The Black Box*): <https://youtu.be/c707favMAGo>

We are just an advanced mold, and other Christmasy thoughts

Tradformer + Sturm

The musical score is composed of four staves of music in G major and 8/8 time. Each staff begins with a treble clef and a sharp sign. The music features a variety of note heads and stems, including eighth and sixteenth notes, along with several rests. The notation is dense and rhythmic, typical of a traditional jig.

This jig was created by Tradformer, and named by Society Member Sturm after one of his PhD students exclaimed, before the Christmas break: “We [humans] are just an advanced mold.” Sturm (*Bosca Dubh*): <https://youtu.be/4wHV0mK3M5c>

Chasing balls in winter

folk-rnn (v2) + Sturm

The musical score is composed of four staves of music in G major and 8/8 time. Each staff begins with a treble clef and a sharp sign. The music features a variety of note heads and stems, including eighth and sixteenth notes, along with several rests. The notation is dense and rhythmic, typical of a traditional jig.

This jig comes from folk-rnn (v2, w/ beam search n=2), and appears as no. 38,699 on pg. 5,737 in the collection “[58,105 Irish Style Double Jigs](#)”. Society Member Sturm named it after his dog chasing a tennis ball in the fresh Christmas snow. Sturm (*Bosca Dubh*): <https://youtu.be/80hrqWHZ5P8>

Optoly Louden

folk-rnn (v1) + Sturm

This jig comes from folk-rnn (v1), and appears in the [folk-rnn v1 Session Book, Vol. 10 \(of 20\)](#). Sturm (*Bosca Dubh*): <https://youtu.be/ISUonyV6jQA>

Wordle's done. Now what?

folk-rnn (v2) + Sturm

folk-rnn (v2)

This jig comes from folk-rnn (v2). The title refers to the short joy of playing the popular word puzzle game "Wordle" first thing in the morning with the first cup of hot coffee. Sturm (*Bosca Dubh*): https://youtu.be/_w0jS9769RQ

What are the odds?

Tradformer + Sturm

The musical score for "What are the odds?" is composed of six staves of music in G major and 8/8 time. The score is divided into measures by measure numbers 1 and 2. The first four staves are grouped by measure 1, and the fifth and sixth staves are grouped by measure 2. The music includes various note patterns such as eighth and sixteenth notes, and rests.

This jig comes from Tradformer, and was titled by the father-in-law of Society Member Sturm coming in the frame while the latter was recording the tune. Sturm (*Bosca Dubh*): <https://youtu.be/RRKgSpLpxc>

Sparkle with Criticism

folk-rnn + Sturm

The musical score for "Sparkle with Criticism" is composed of six staves of music in G major and 8/8 time. The score is divided into measures by measure numbers 1 and 2. The first four staves are grouped by measure 1, and the fifth and sixth staves are grouped by measure 2. The music includes various note patterns such as eighth and sixteenth notes, and rests.

This jig comes from a folk-rnn model fine-tuned on the jigs in O'Neill's 1001. The title comes from a wonderful malapropism committed by a PhD student of Society Member Sturm: He said, "I will sparkle with criticism when I review your work" when he meant to say, "I will sprinkle criticism while I review your work". Sturm (*Bosca Dubh*): <https://youtu.be/8LSE8qEnPQo>

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)

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

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 notation is in common time, indicated by a 'C' with a '4' over it. The music features eighth-note patterns and sixteenth-note figures, typical of a reel. The score is generated by folk-rnn (v2) with beamsearch n=2.

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 notation is in common time, indicated by a 'C' with a '4' over it. The music features eighth-note patterns and sixteenth-note figures, typical of a reel. The score is co-created by folk-rnn (v2) and Sturm, with specific sections labeled '1' and '2'.

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 eight staves of music in G major (one sharp) and 4/4 time. The music consists of eighth and sixteenth-note patterns. There are two endings, labeled '1' and '2', indicated by brackets above the staff. A measure number '3' is also present below the staff.

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

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>

Dress the Egg with a Hat

folk-rnn (v2) + Sturm

The musical score is composed of eight staves of music in G major (one sharp) and 4/4 time. Each staff begins with a treble clef and a key signature of one sharp. The music consists of various note patterns, including eighth and sixteenth notes, and rests. The score is divided into four sections by vertical bar lines.



Society Member Sturm created this reel from two tunes generated by folk-rnn (v2), in response to the photo Society Member Näsström sent of his breakfast (left). Sturm (*The Black Box*) and Näsström (flute): https://youtu.be/W8q9eq_wNNM

Namloc's

folk-rnn (v2) + Sturm

The musical score consists of eight staves of music in G major, 4/4 time. The music is divided into two sections, each with two endings (1 and 2). The notation includes various note heads, stems, and bar lines.

This tune was discovered in [the folk-rnn \(v2\) Session Books, Vol. 1 of 10](#) by a fellow whose screen name is "Namloc". It appears in that volume as #39. He says, "Tune 39 was actually sounding like quite a plausible traditional tune up until it ended on a low E when it clearly should have ended on a G instead". Society member Sturm has named the tune after the helpful fellow, but has kept the E for drama and contrast. Sturm (*The Black Box*): <https://youtu.be/H-5LJDzKrCc>

The Fonserannes Staircase

folk-rnn (v2) + Sturm

The musical score for "The Fonserannes Staircase" is composed of eight staves of music in G major and 4/4 time. The music is written for a single instrument, likely a fife or flute, as indicated by the title. The score consists of two sets of four staves each, separated by a blank space. The first set of staves begins with a treble clef and a sharp sign, indicating G major. The second set of staves also begins with a treble clef and a sharp sign. The music features various note patterns, including eighth and sixteenth notes, and includes a fermata over a note in the fourth staff.

This reel was selected by an artificial critic choosing from tunes generated by folk-rnn (v2) according to the tastes of Society member Sturm. The artificial critic is the same that has selected a number of other tunes in this volume, e.g., the hornpipe “Fredrik’s Christmas Critic” on page 34. Sturm named this tune after traveling up the impressive **Fonserannes Staircase** during a cruise on the Canal du Midi on August 17, 2021. Sturm (*The Black Box*): <https://youtu.be/osR8e8-EKoE>

Promenade in G with some Accidentals

Tradformer + Sturm

The musical score for "Promenade in G with some Accidentals" is composed of eight staves of music in G major and common time. The music is written for a single instrument, likely a fife or flute. The score consists of two sets of four staves each, separated by a blank space. The first set of staves begins with a treble clef and a sharp sign, indicating G major. The second set of staves also begins with a treble clef and a sharp sign. The music features various note patterns, including eighth and sixteenth notes, and includes several grace notes and accidentals (flat and sharp signs). Measure numbers 3 and 3 are marked above certain measures in the first three staves.

Society member Sturm learned this reel from Tradformer. Sturm (*The Black Box*) and Cros Vila (flute): <https://youtu.be/3QZBeccmuz8>

Ping the Kvetch

Tradformer + Sturm

The musical score for "Ping the Kvetch" is presented in two systems. The first system contains four staves of music, each with a treble clef and a key signature of one sharp (G major). The second system begins with a repeat sign and consists of two staves, also with a treble clef and one sharp. Measure numbers 1 and 2 are placed above the second system's staves to indicate the progression of the piece.

Society member Sturm learned this reel from Tradformer. Sturm (*Bosca Dubh*) and Cynthia Liem (melodica), Mark Goldstein (dinger): <https://youtu.be/zR0-BuZ2DkI>

Beef Out

Tradformer + Sturm

Society member Sturm learned this reel from Tradformer. Sturm (*Bosca Dubh*), Laura Cros Vila (flute), and Ken Déguernel (piano): <https://youtu.be/zR0-BuZ2DkI>

2.3 Hornpipe

Ms. Riddles' Hornpipe

folk-rnn (v2) + Sturm

The image displays five staves of musical notation for a single instrument, likely a violin or flute, set against a white background. The music is in common time (indicated by a '4') and consists of measures 11 through 15 of the national anthem of the United States. The key signature is one sharp (F#). The notation includes various note heads (solid black, open, and stems), slurs, and grace notes. Measure 11 starts with a sixteenth-note figure. Measures 12-13 feature eighth-note patterns with sixteenth-note grace notes. Measures 14-15 contain eighth-note pairs and sixteenth-note figures. Measure 15 concludes with a final eighth-note pair. Measure numbers 11 through 15 are placed above the staff, and measure numbers 1 and 2 are placed below the staff, indicating a repeat section.



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 mem-

ory 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 features six staves of music. The first two staves show a repeating pattern of eighth and sixteenth notes. The third and fourth staves introduce a more complex rhythmic pattern with sixteenth-note figures and grace notes, divided into measures 1, 2, and 3. The fifth and sixth staves continue this pattern, maintaining the established rhythm and structure.

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>

Socks and Sandals

folk-rnn (v2) + Sturm

The musical score for "Socks and Sandals" is a hornpipe in G major, 4/4 time. It features six staves of music. The first two staves show a repeating pattern of eighth and sixteenth notes. The third and fourth staves introduce a more complex rhythmic pattern with sixteenth-note figures and grace notes, divided into measures 1, 2, and 3. The fifth and sixth staves continue this pattern, maintaining the established rhythm and structure.

This hornpipe was generated by folk-rnn (v2), and discovered by a fellow named Milton at thesession.org. It appears as number 6 in the [folk-rnn \(v2\) Session Book, Vol. 1 of 10](#). Society member Sturm titled the tune since he believes it fits nice and slow summer days in Scandinavia. Sturm (*The Black Box*): <https://youtu.be/sDqKJLdIIz4>

Tease the Dog

folk-rnn (v2) + Sturm

The musical score for "Tease the Dog" is written in 4/4 time with a major key signature. It features two staves of music notation, each consisting of eight measures. The first staff uses a treble clef, and the second staff uses a bass clef. The music is composed of eighth-note patterns, primarily eighth-note pairs and sixteenth-note pairs.

This hornpipe was generated by folk-rnn (v2), and recommended by a critic tuned to the likes of Society member Sturm — the same critic that recommended the hornpipe “Fredrik’s Christmas Critic” on page 34, and several others. At right we see said dog being teased by Society member Sturm. Sturm (*The Black Box*): <https://youtu.be/Hw40gy-uKhg>



Dog in the Bog

folk-rnn (v2) + Sturm

The musical score for "Dog in the Bog" is presented in A major, 4/4 time. It consists of eight staves of music, each with a treble clef and two sharps (F# and C#). The music features various note patterns, including eighth and sixteenth notes, and includes measure numbers 1 through 8. Measure 1 starts with a sixteenth-note pattern. Measures 2-3 show eighth-note pairs. Measures 4-5 feature sixteenth-note patterns. Measures 6-7 continue the sixteenth-note patterns. Measure 8 concludes with a sixteenth-note pattern.

This hornpipe was generated by folk-rnn (v2) and altered by Society Member Sturm to become a difficult piece to play on his accordion. The key of A major presents some interesting problems for the mechanics of his instrument, but also makes for wrong notes that sound just about right. Sturm (*Bosca Dubh*): <https://youtu.be/npv-gNbSk1E>

Radio Baton Hornpipe

Tradformer + Sturm

The musical score for "Radio Baton Hornpipe" is presented in two systems. The first system contains four measures. The second system begins with a measure of eighth-note pairs followed by a measure of sixteenth-note pairs. Both systems feature three-measure groups indicated by '3' under the measures. The score concludes with a final section divided into '1' and '2'.

This hornpipe was generated by *Tradformer*, a machine learning model created by Society Member Casini (see [The New Kid](#).) Society Member Sturm made several alterations to the tune, and tasked Society Member Amerotti with using the radio baton to control a disklavier in performing an accompaniment. Sturm (*The Black Box*), Amerotti, Casini, and Cros Vila: <https://youtu.be/upKVYOhNq70>

Tid för Jul!

folk-rnn (v2) w/ critic + Sturm

The musical score for "Tid för Jul!" is presented in four systems. The first system contains four measures. The second system begins with a measure of eighth-note pairs followed by a measure of sixteenth-note pairs. Both systems feature three-measure groups indicated by '3' under the measures. The score concludes with a final section divided into '1' and '2'.

This hornpipe was generated by folk-rnn (v2), and recommended by a critic tuned to the likes of Society member Sturm — the same critic that recommended the hornpipe “Fredrik’s Christmas Critic” on page 34, and several others. (The original output of the algorithm was lost in the process.) Sturm (*The Black Box*) and the KTH folqueuestraux: <https://youtu.be/GjKcxbLgPMA>

Belly Spooks

Tradformer + Sturm

This hornpipe was generated by *Tradformer*, a machine learning model created by Society Member Casini (see [Radio Baton Hornpipe](#).) Society Member Sturm made several alterations to the tune, specifically in the B section, to sound much more lost. Sturm (*Bosca Dubh*): <https://youtu.be/bsTDzckYFk4>

The Echo Hornpipe

Tradformer + Sturm

This hornpipe was generated by *Tradformer*, a machine learning model created by Society Member Casini (see [Belly Spooks](#).) Society Member Sturm made a few alterations to the tune, and felt several parts sound like echos – thus the name. Sturm (*Bosca Dubh*): <https://youtu.be/nHyyznBWTSw>

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

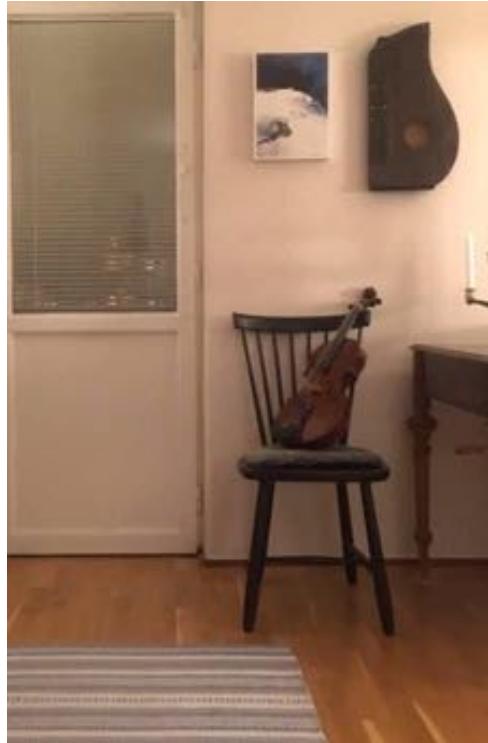
folk-rnn (v1) + Sturm

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>

Polka and Roll

folk-rnn (v2) w/ critic + Sturm

folk-rnn (v2) w/ critic

This polka was generated by folk-rnn (v2), but recommended by a critic tuned to the likes of Society member Sturm. It's a good tune! Sturm (*The Black Box*), Cros Vila (flute) and Luca Casini (piano): <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

A musical score consisting of two staves of music notation. The top staff is in 12/8 time with a key signature of one sharp. The bottom staff is also in 12/8 time with a key signature of one sharp. Both staves feature eighth-note patterns, with the second staff showing more complex eighth-note chords.



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

Chickens "Dancing" on a Hot Plate

folk-rnn (v2 w/ beam search) + Sturm

This slide comes from folk-rnn (v2, w/ beam search n=2, beta=30). The tune reminds Society Member Sturm of Carl Perkins – the fellow who “discovered” Elvis – who had a side show where one could see dancing chickens – which were actually set on top a hot plate. Sturm (*The Black Box*): <https://youtu.be/S5olsM3Yvwk>

2.6 Polska

MÅ Å¥ndag pÅ Å¥ KTH

folk-rnn (v/ Swedish)

The musical notation consists of two staves of music in 3/4 time, major key. The first staff begins with a dotted half note followed by eighth notes. The second staff begins with a quarter note followed by eighth notes.

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>

Uggglas Polska

Tradformer (Swedish) + Sturm

The musical notation consists of two staves of music in 3/4 time, major key. The first staff begins with a dotted half note followed by eighth notes. The second staff begins with a quarter note followed by eighth notes. There are two endings labeled '1' and '2' at the end of the piece.

This polska was learned from Tradformer, which was trained on thesession.org data, and the fine tuned on slängpolska from folkwiki.se. Sturm (*The Black Box*), Cros Vila (flute), Casini (harp): <https://youtu.be/Y2DD9IDvhBg>

The Dagstuhl Dawgs

folk-rnn (v. Swedish) + Sturm

The musical score for "The Dagstuhl Dawgs" is presented in G major and 3/4 time. It features eight staves of music, divided into two main sections. The first section concludes with a repeat sign and a double bar line, which serves as a transition point. Following this, the second section begins, characterized by a two-part ending, indicated by the numbers "1" and "2" positioned above the first and second measures respectively. The music is composed of various note patterns, including eighth and sixteenth notes, and includes several sharp signs throughout the key signature.

This polska was learned from folk-rnn (v/ Swedish), in commemoration of a workshop in music informatics held Feb 20-25, 2022 in Dagstuhl, Germany. Sturm (*Bosca Dubh*), Bittner (piccolo), Balke (trumpet): <https://youtu.be/vjeULaGp7JM>

2.7 Piece

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

folk-rnn (v2)

The musical notation is in 6/8 time, G major. It consists of two staves of music, each with six measures. The notes are primarily eighth and sixteenth notes, with some quarter notes and rests. The first staff starts with a sixteenth-note pattern, followed by eighth-note pairs, then sixteenth-note pairs, and finally eighth-note pairs again. The second staff follows a similar pattern.

This tune was learned from folk-rnn (v2). It is best played slowly, like any love song written for an algorithm. 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/tXmEvGwseU>

De Själlösas Schottis

folk-rnn (v/ Swedish) + Sturm

The musical notation is divided into three parts, labeled 1, 2, and 3. Part 1 is in 2/4 time, G major. Part 2 is in 3/4 time, F# major. Part 3 is in 4/4 time, C major. The notation includes various note heads, stems, and bar lines. There are also dynamic markings such as forte (f), piano (p), and sforzando (sf).

This tune comes from material generated by the [Swedish version of folk-rnn](#). The title means "The Schottis of the Soulless". With the playing style of Society member Sturm, it is less than a waltz and more of a schottis. It was actually entered into a [competition of new folk music](#). Sturm (*Bosca Dubh*): <https://youtu.be/WBfF6zFRdCo>

The Cuckoo's Wedding

folk-rnn (v1) + Sturm

The musical score for "The Cuckoo's Wedding" is presented in G major and 4/4 time. It features eight staves of music. The first staff begins with a dotted quarter note followed by eighth notes. The second staff starts with a dotted half note. The third staff begins with a quarter note. The fourth staff starts with a dotted half note. The fifth staff begins with a quarter note. The sixth staff starts with a dotted half note. The seventh staff begins with a quarter note. The eighth staff starts with a dotted half note. Measure numbers 1, 2, and 3 are indicated above the second staff.

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>

Evigt Förlorad

C(AABBC)2CA

folk-rnn (v2) + Sturm

A

B

C

||:

||:

||:



Society member Sturm found this piece while looking through the “rejections” of an artificial critic he built for the Ai Music Generation Challenge 2020. The title means “forever lost”. He dedicates the piece to his deceased dog *Smootzieg*, who died tragically on her six-month birthday after getting from her harness and running into a busy road. Sturm (*Bosca Dubh*): <https://youtu.be/rRu8LAhEp-w>

Heading back home to finally bury mom

folk-rnn (v2 w/ beam search n=2) + Sturm

Society member Sturm found this piece while looking through “58,105 Irish Style Double Jigs” — a collection generated by folk-rnn (v2, w/ beam search n=2) as part of Society member Sturm’s paper, “An Artificial Critic of Irish Double Jigs”, in *Proc. AI Music Creativity Conference, Graz, 2021*. It appears as no. 28984 on pg. 4293. The title comes from Society member Sturm’s travel back home after the pandemic to finally see his mother into the ground. Sturm (*The Black Box*): https://youtu.be/x1eH_07e0Eo

They are everywhere

folk-rnn (v2) + Sturm

Society member Sturm learned this piece generated by folk-rnn (v2, w/ beam search n=2). He felt it was more like a jig taken from an old aire, and so tried to extract that song from it. Sturm (*Bosca Dubh*): https://youtu.be/Us8-hpX7_qk

A slow waltz

folk-rnn (v. Swedish) + Sturm

The musical score for 'A slow waltz' is presented in eight staves. Each staff begins with a treble clef and a key signature of one flat. The music is in 3/4 time. The score includes various note patterns such as eighth and sixteenth notes, and features several measure rests.

Society member Sturm learned this piece from folk-rnn (v. Swedish), but made a variety of changes here and there. Sturm (*Bosca Dubh*): https://youtu.be/e_0nlfPgv10

The shadow still lay where he had been standing

folk-rnn (v2) + Sturm

The musical score for 'The shadow still lay where he had been standing' is presented in eight staves. Each staff begins with a treble clef and a key signature of one sharp. The music is in 8/8 time. The score includes various note patterns such as eighth and sixteenth notes, and features several measure rests.

Society member Sturm learned this piece from folk-rnn (v2), but made a variety of changes here and there. Sturm (composer): https://youtu.be/Ky_fH3rSWeE

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