EMPOWERING
COMPOSERS

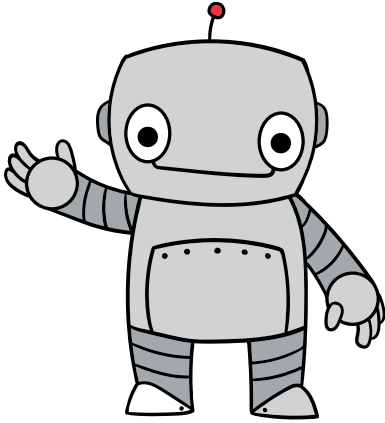## with ChatGPT

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& powered by the **Music Interval Theory Academy**

SETTING THE FRAME FOR TODAY'S SESSION

We'll stick to ChatGPT for today.

- Turn ChatGPT into your personal assistant.
- You should stay in full control.
- It's a tool that helps you become more productive and creative as an artist.
- Let's embrace that new palette of possibilities.

MITA and its community focus on **sharing best practices and helping each other grow as artists**. With this session, we want to share our own experiences with ChatGPT for composers.

What you'll get out of this session:

- Inspiration on how to use ChatGPT as a music creator (based on our experiences)
- We'll look at concrete prompts that improve music-related results
- We'll (hopefully) see ChatGPT fail on basic music theory applications :D
- We'll cover the best practices to approach ChatGPT (CoT, ToT, as of June 2023)
- We'll let ChatGPT actually write music and (hopefully) listen to it

THESE THINGS DON'T WORK ...

... but you'll still get useful information.

Example prompts:

"*Write me a symphony in D major.*"
(for reference: https://en.wikipedia.org/wiki/Symphony)

"*Compose an original romantic piece of music for the orchestra.*"
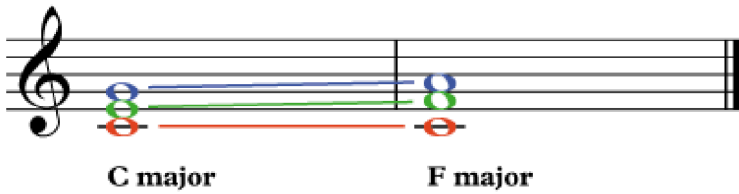
We clearly won't reach the end goal with those prompts but how can we use ChatGPT nevertheless?

Get inspired and clearer on what you want to write:

- **Explore various title ideas:** "*Please provide 5 possible title ideas for this composition and base them on Finding love in Life.*"
- **Write a story for inspiration:** "*Please write a story around that composition that I can use for inspiration.*"
- **Create a clear structure** you can follow in your composition: "*I want you to create a table. Divide the story into chapters and summarize the plot. Each line of that table connects to one chapter of that story. Next, I want you to create a column labeled "Suggested Instrumentation" where you list the instrumentation for that part of the composition. Next, I want you to create another column labeled "Emotion" where you describe the emotion of the music, including suggested dynamic changes and overall density of the music.*"

FUN EXPERIMENT: ChatGPT & VL

C major   F major

scale tone **5** goes to scale tone **3**
scale tone **3** goes to scale tone **1**
scale tone **1** goes to scale tone **5**

Let's see what ChatGPT suggest:

Prompt1: "*Are you familiar with the voice leading rules? Please explain them to me.*" (reference: https://en.wikipedia.org/wiki/Voice_leading)

Prompt2: "*Please voice-lead a simple C major triad into an F major triad.*"

😈 We'll hopefully see ChatGPT fail applying proper voice leading rules.

What to do with that information:

- **Double-check that facts** and the type of information that ChatGPT gives you
- Even if you try to give more context (like explaining proper voice leading to the first first voice, it still gives out a wrong results; I even explained all three lines and asked again to apply proper VL to another triad, it still failed
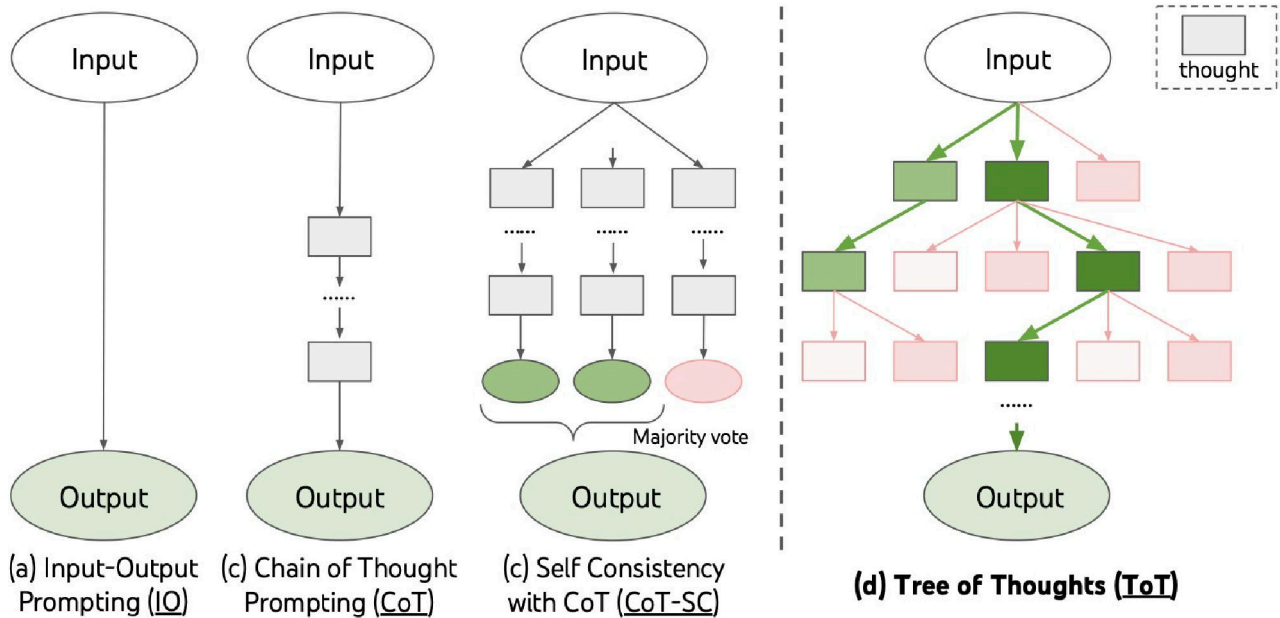
Let's dive a bit deeper into why ChatGPT failed …

BEST PRACTICES: CoT & ToT

Usually, solving a problem includes several steps, and if you ask for the end result, it's not always obvious to ChatGPT how to get there. Hence, you'll get poor advice.

Here are concepts (published in research papers from OpenAI) about how to create better results:

(a) Input-Output Prompting (IO) (c) Chain of Thought Prompting (CoT) (c) Self Consistency with CoT (CoT-SC) (d) Tree of Thoughts (ToT)

The ToT apprach is the closest to how the human brain tackles a problem.

Example prompts for various methods:

- **IO prompting:** "*Compose me an original piece of music.*"
- **CoT prompting:** "*Please compose an original piece of music using the chain of thought approach. Start by brainstorming the main theme or motif, then describe how you would develop it throughout the composition. Consider the progression of harmonies, the use of different instruments or sections, and any variations. Finally, explain how you would bring the piece to a satisfying conclusion. Take us through your thought process and creative decisions as you craft the composition.*"
- **ToT prompting:** "*Please compose an original piece of music using the tree of thought approach. Start by brainstorming multiple ideas for the main theme or motifs, and create branches for each idea. Describe how you would develop each branch, considering different harmonic progressions, rhythmic patterns, and melodic variations. Explore branching possibilities for instrumentation, considering different sections or soloists. Finally, explain how you would connect and weave these branches together into a cohesive musical composition. Take us through your thought process and creative decisions as you craft the piece, considering the different paths and possibilities along the way.*"

Can ChatGPT even write the notes on paper? The quick answer is ... YES ... but ...

Let's explore how to use ChatGPT to create actual notes we can use in a notation program.

COMPOSING WITH ChatGPT

Example prompt: "*Please write me an advanced original 4-bar-melody from the Baroque era in musicXML format.*"

Now we create the actual MusicXML file and play it back:

- I use any text editing software to save the code in a MusicXML file (*.xml)
- Now you can import that file in your notation program or DAW
- for a quicker workflow, we'll listen to the file online
- (https://www.soundslice.com/musicxml-viewer/)

Although it's (technically) possible to compose with ChatGPT, the results are really poor and not usable. - You better learn composition at MITA! :D

A bit more inspiration for you:

"*I need a theme for my next orchestral piece. Can you suggest something evocative?*"

"*Can you provide a narrative or scenario that I could base my next song on?*"

"*Can you help me come up with some lyrics for a melancholic love song?*"

"*Please suggest words that rhyme with 'love' and signifies 'separation'.*"

"*Please suggest some unusual composition techniques.*"

"*Can you suggest some interesting ways to develop my main motif in a piece?*"

"*Role play. Imagine a room with those characters sitting on a round-table and discussing the following subject I provide. Use all the knowledge about each person to respond in the most authentic way and let each character critique the respective other replies. Don't break character. The topic I want to be discussed is: "The best use of ChatGPT for composers"*"

RE-THINK COMPOSITION

https://musicintervaltheory.academy/

It's about time to revolutionize music composition with innovative Interval Theory techniques. We at MITA help composers create more expressive and meaningful music.