How to Select a Research Topic for your Paper

Valerio Velardo

SHOULD I PICK THIS TOPIC?
LOOK! THAT ONE IS ALSO GOOD
THAT OTHER
ONE IS ALSO COOL
imgflip.com

Topic selection guidelines

Topic selection guidelines

- Pick a topic you’re interested in

Topic selection guidelines

- Pick a topic you're interested in
- Pick a topic that has the right scope

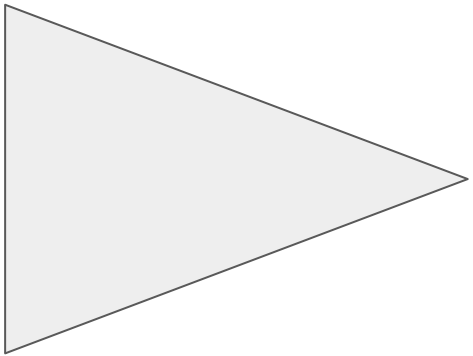
Not too broad

Not too broad

Generative system that can create music in any known musical style

Not too broad

Generative system that can create music in any known musical style



Generative system that can create melodic improvisations in a jazz style

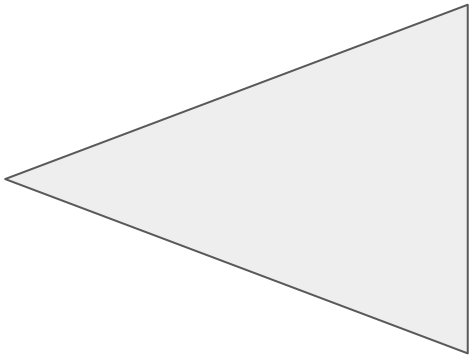
Not too narrow

Not too narrow

Composer detection system for Italian composers who lived in Rome between 1860-1880

Not too narrow

Composer detection system for Italian composers who lived in Rome between 1860-1880



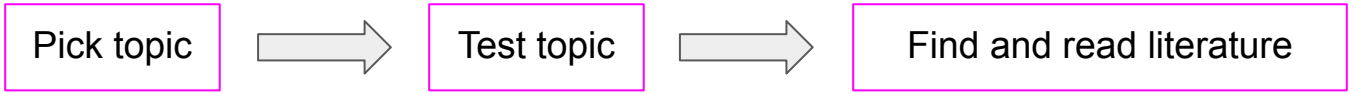
Composer detection system for Romantic composers

Topic selection guidelines

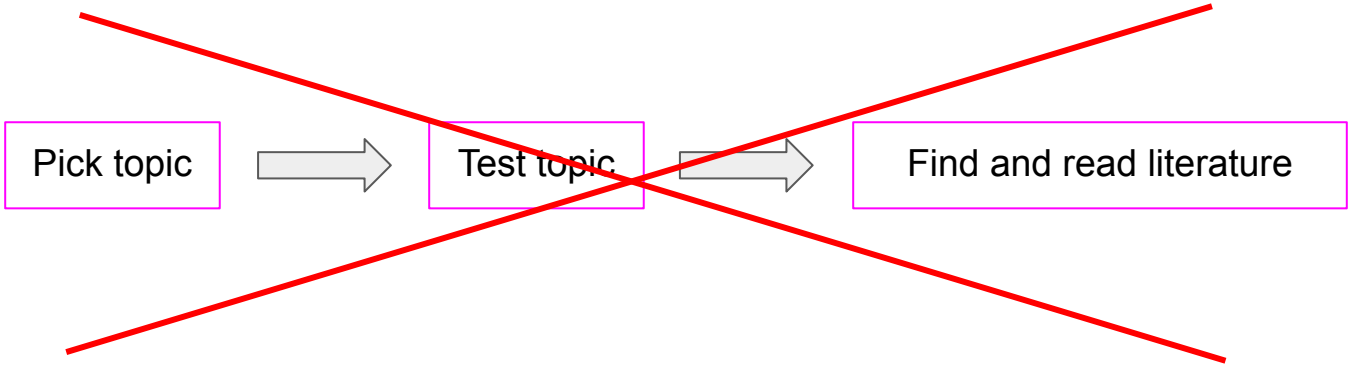
- Pick a topic you're interested in
- Pick a topic that has the right scope
- Pick a topic within the conference / journal's themes

Topic selection process

Topic selection process

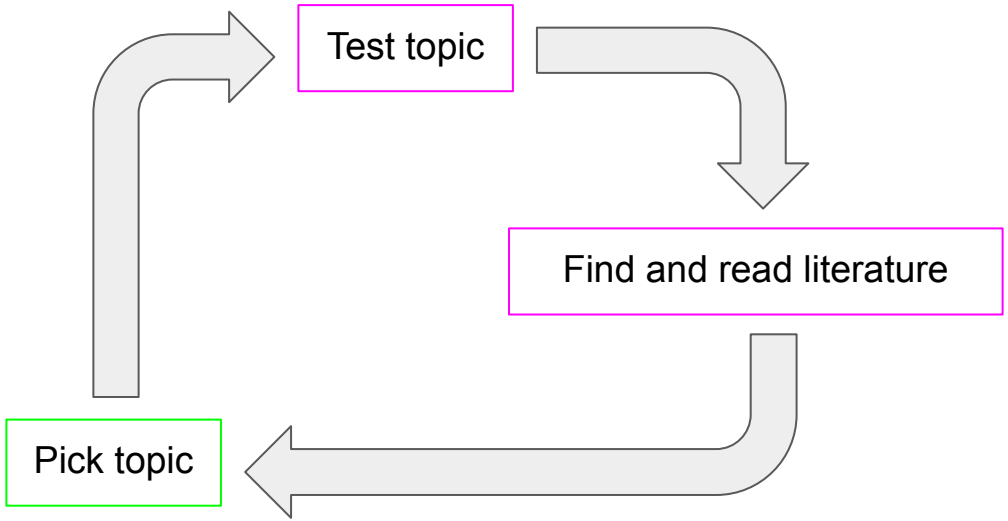


Topic selection process

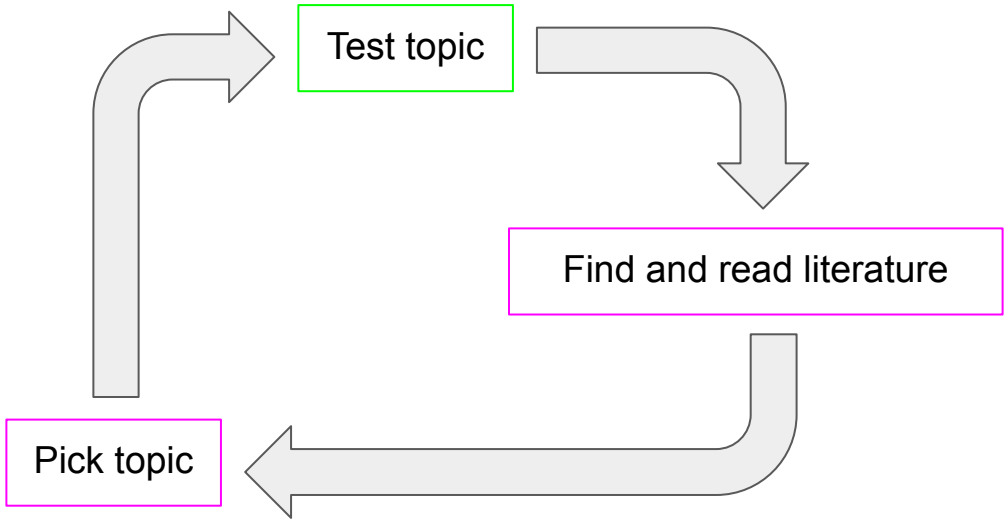


NOT A LINEAR PROCESS!

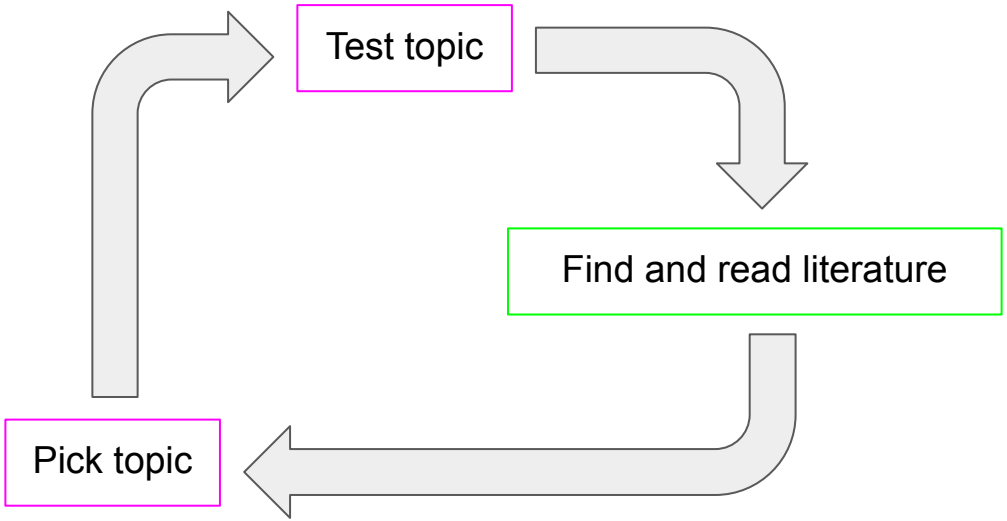
Topic selection process



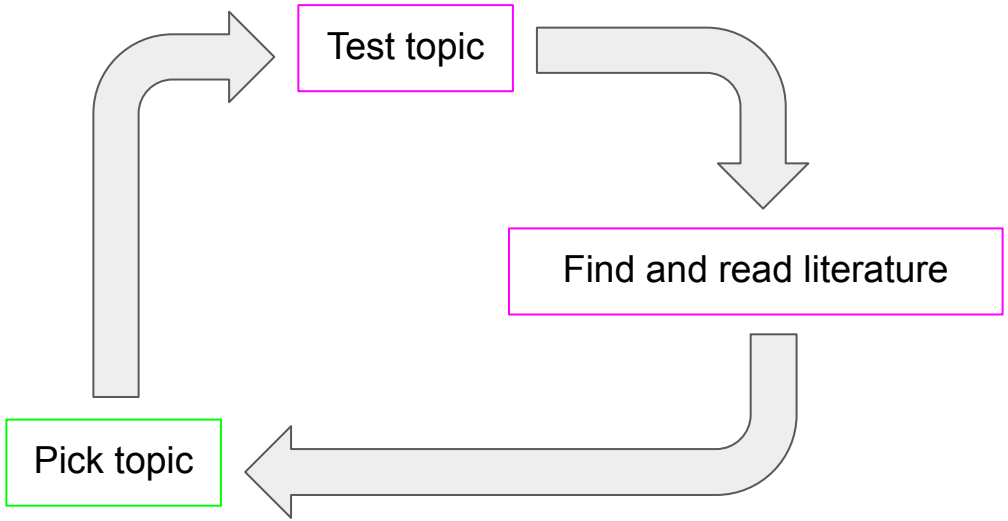
Topic selection process



Topic selection process



Topic selection process



Topic selection process: Operational tips

1. Brainstorm concepts around your topic
2. Develop a research question
3. Decide research approach
4. Read literature and other resources

Brainstorming concepts

Music generation

Melodies

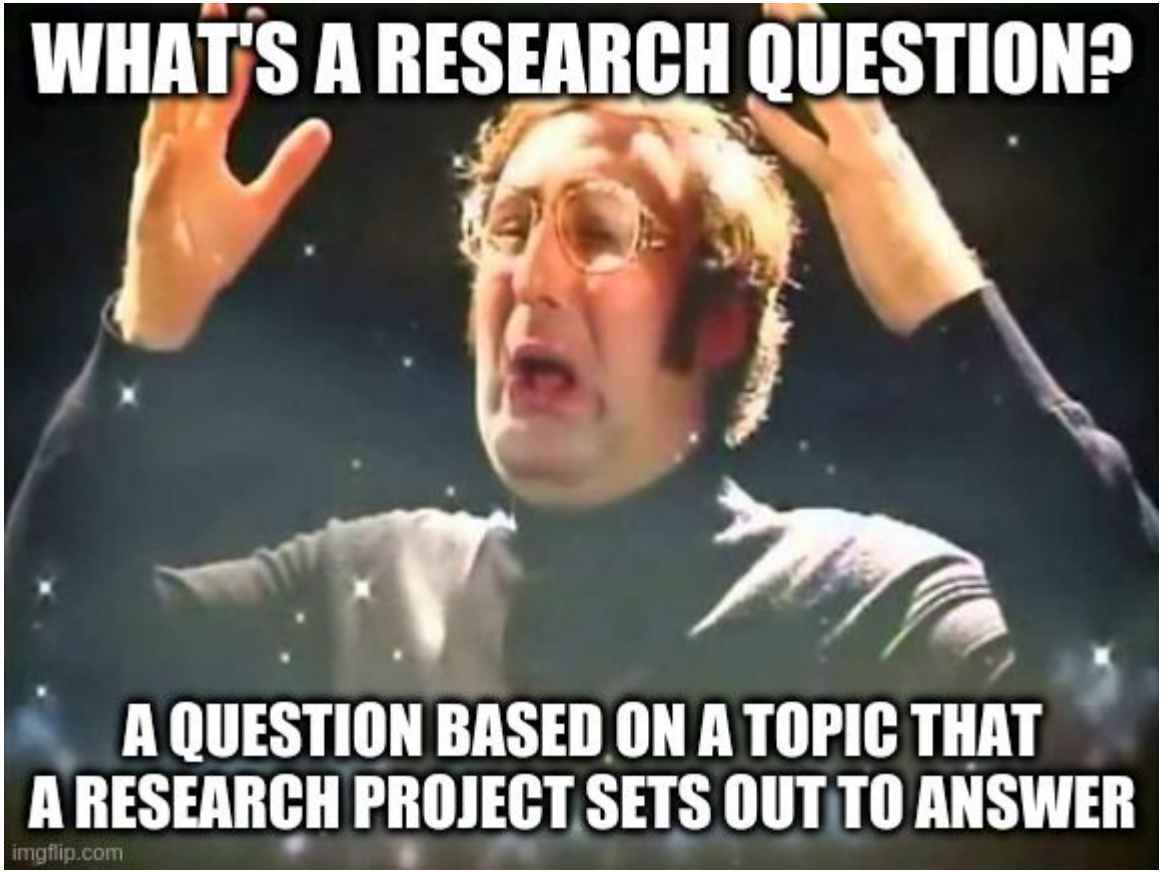
Jazz

Improvisation

Moods

Neural network

Develop a research question


WHAT'S A RESEARCH QUESTION?
A QUESTION BASED ON A TOPIC THAT
A RESEARCH PROJECT SETS OUT TO ANSWER
imgflip.com

Develop a research question

- Feasible
- Interesting
- Novel
- Ethical
- Relevant

Develop a research question

- **F**easible
- **I**nteresting
- **N**ovel
- **E**thical
- **R**elevant

Brainstorming concepts

Music generation

Melodies

Jazz

Improvisation

Moods

Neural network

Develop a research question

Is it possible to build a neural net that improvises Jazz melodies based on moods?

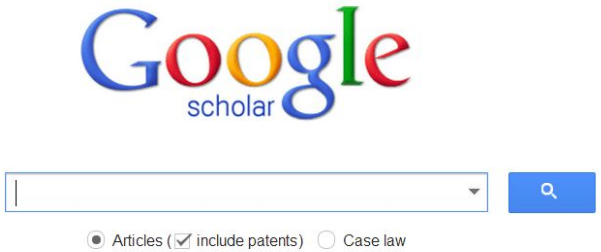
Decide research approach

Decide research approach

Empirical - coding

User experiments

Read literature and other resources



Read literature and other resources

Takeaway points

- Pick a topic that isn’t too broad / narrow
- Pick a topic in line with conference / journal themes
- Select a topic iteratively
- Brainstorm keywords to come up with a topic
- Develop a research question associated to the topic

What’s up next?

LITERATURE REVIEW