

# Part 1: Foundations

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- What's generative music?
- History of generative music
- Use cases
- Ethical implications of generative music
- Symbolic vs audio generation
- Generative music techniques
- Limitations and visions for the future

## 2. What's generative music?

*Generative Music AI*

THE **SOUND** OF AI



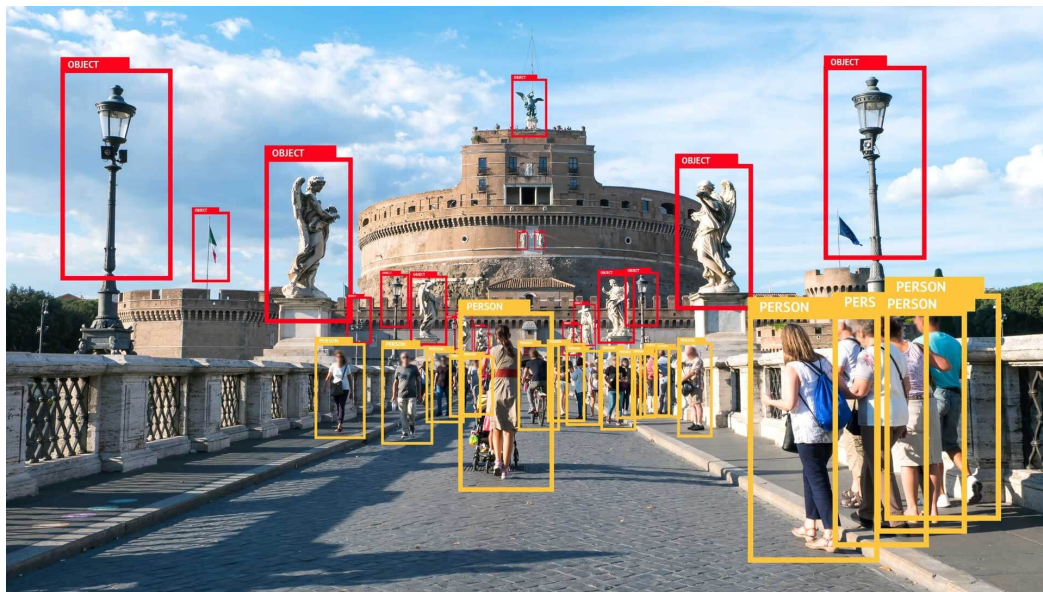
Universitat  
Pompeu Fabra  
Barcelona

**MTG**  
Music Technology  
Group

# Overview

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- Intelligent vs creative tasks
- Defining generative music
- Disciplines that contribute to generative music
- Generative music challenges





Objective success metric

Objective success metric

**Well-defined problem description**







Objective success metric

Well-defined problem description

~~Objective success metric~~

Well-defined problem description

~~Objective success metric~~

~~Well-defined problem description~~

Artificial Intelligence

Artificial Intelligence

The diagram consists of two nested rounded rectangles. The outer rectangle is light gray with a thin gray border and contains the text 'Artificial Intelligence'. Inside it is a smaller, teal-colored rounded rectangle with a teal border, containing the text 'Computational Creativity'.

Computational Creativity

Artificial Intelligence

Computational Creativity

**Generative Music**

# Defining generative music

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*The art and science of  
developing computer  
programmes that create music  
with a varying degree of  
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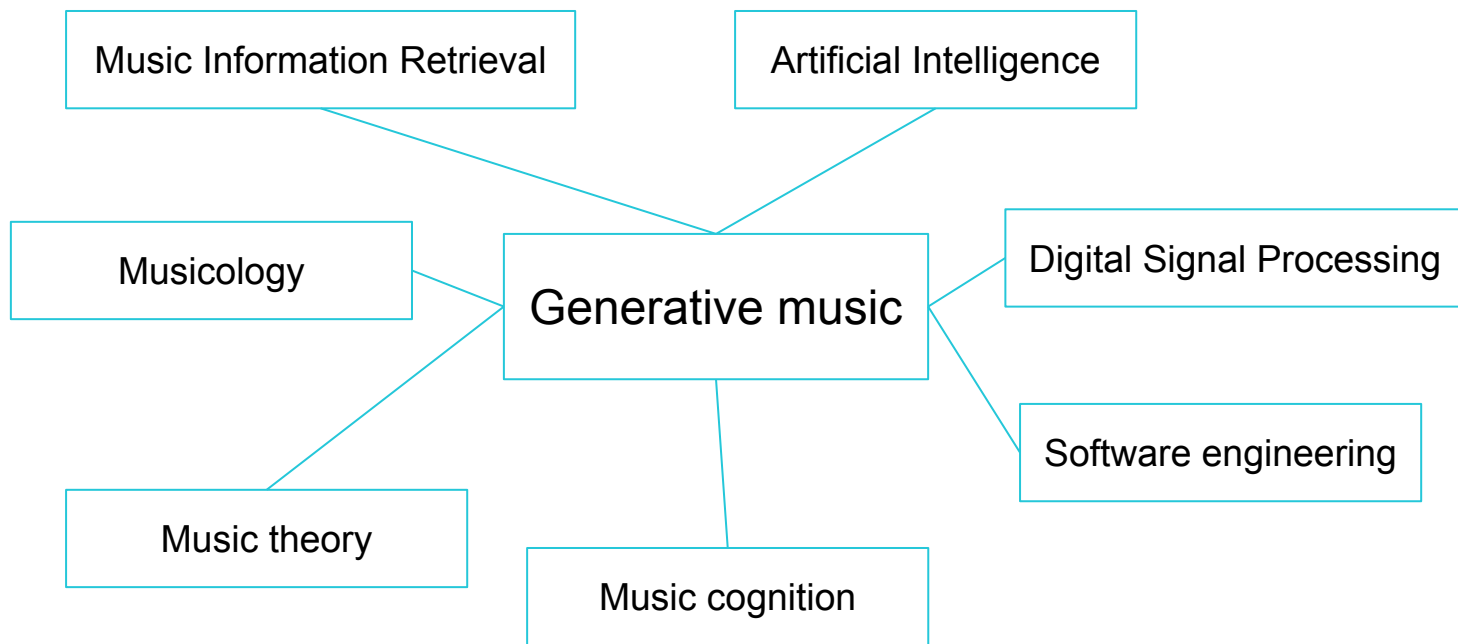
*The art and science of  
developing computer  
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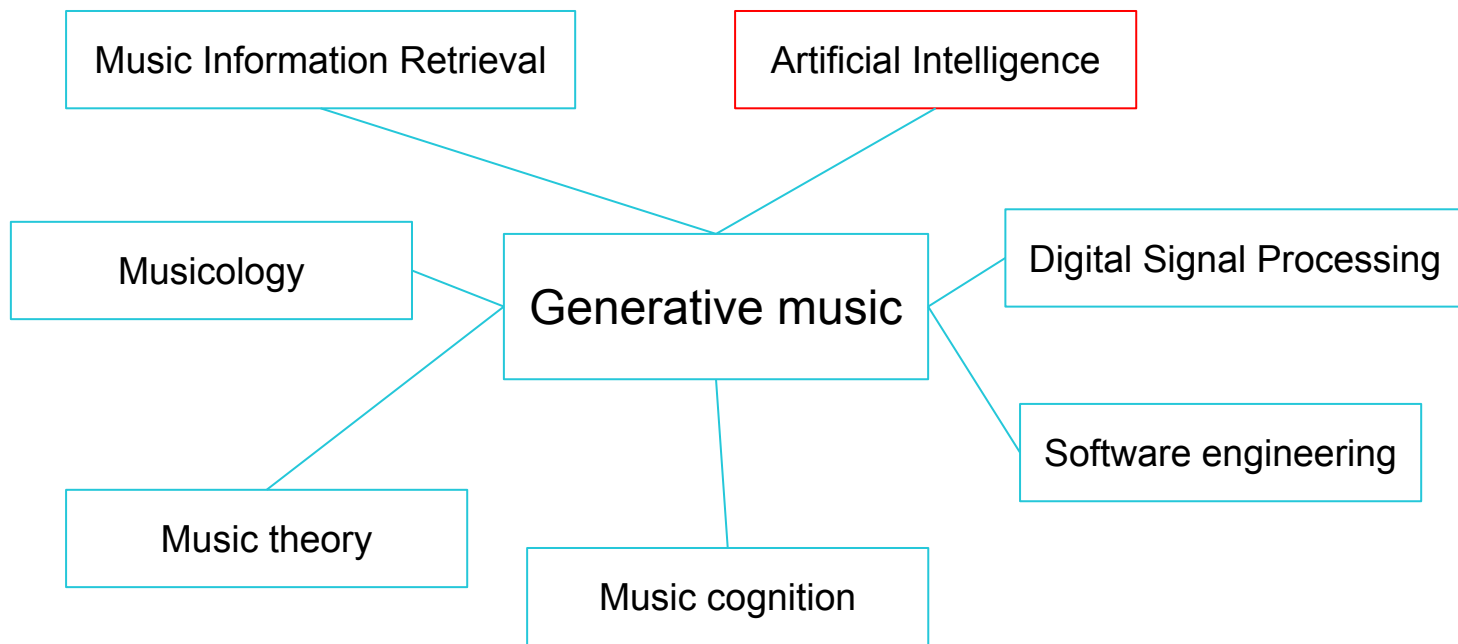
# One field, many names

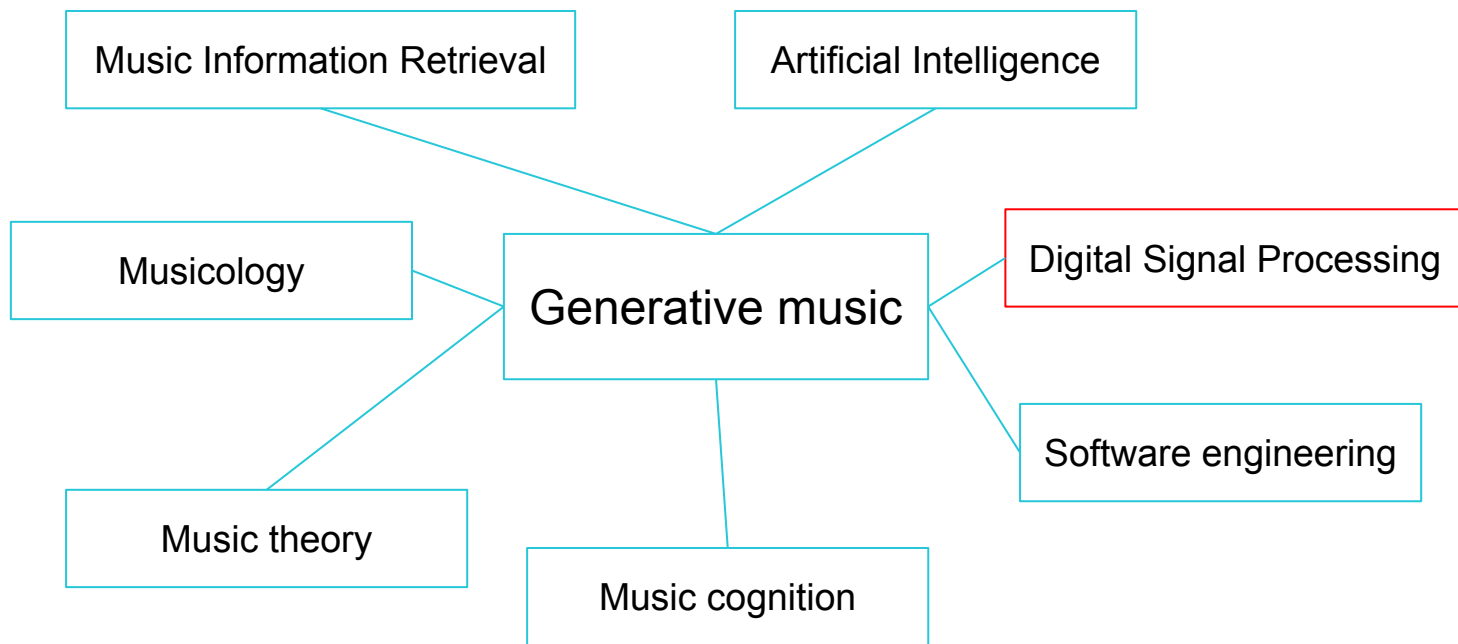
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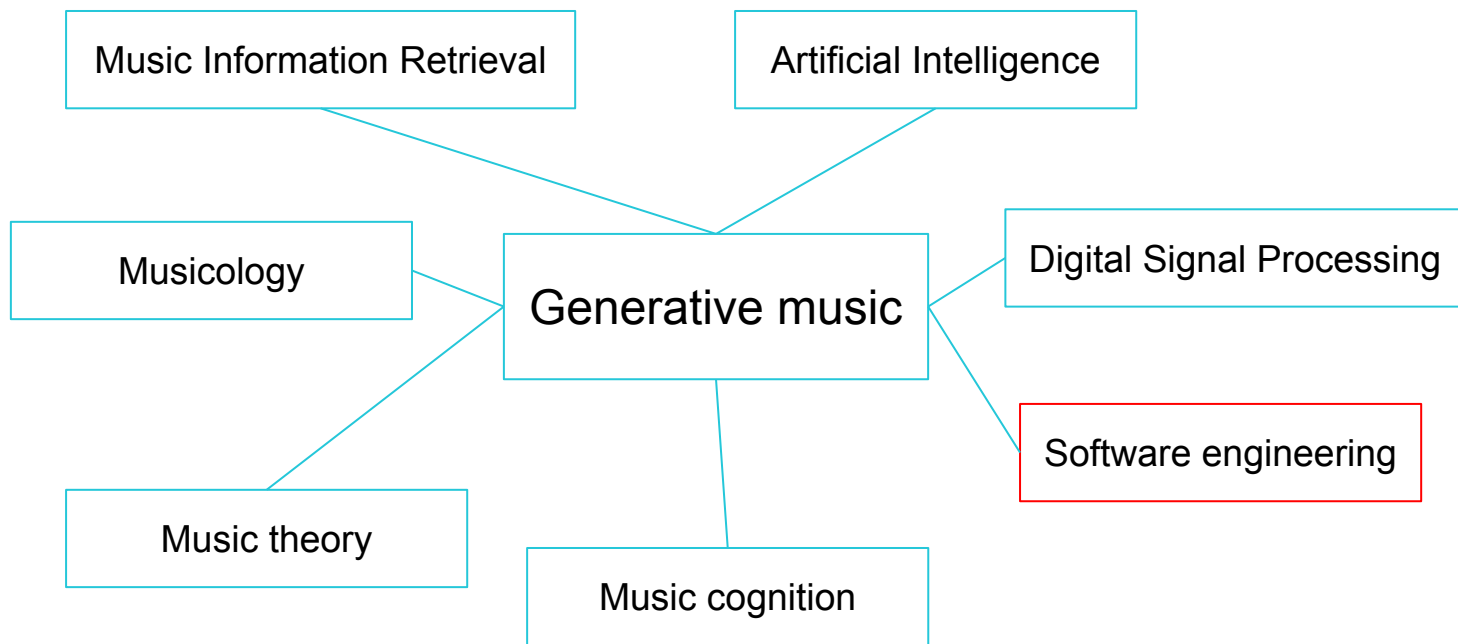
- Generative music
- Algorithmic composition
- Music metacreation
- Procedural music
- Music AI
- ...

Generative music

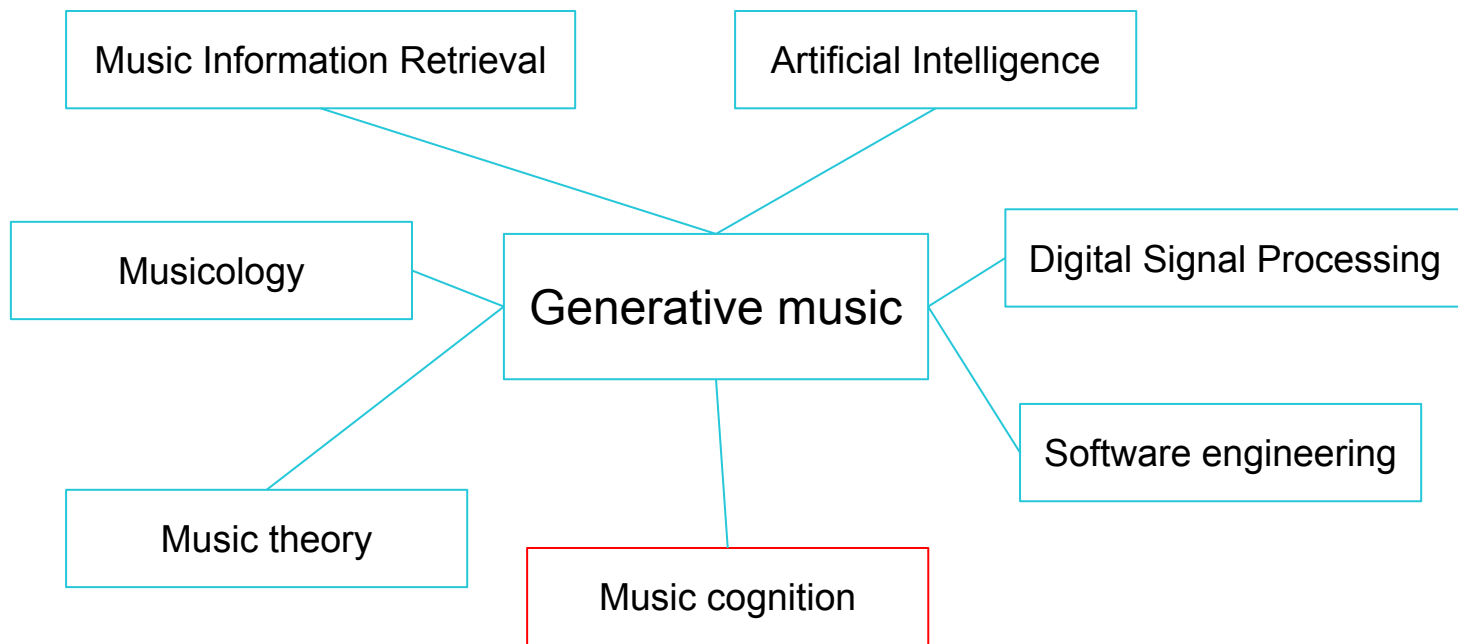


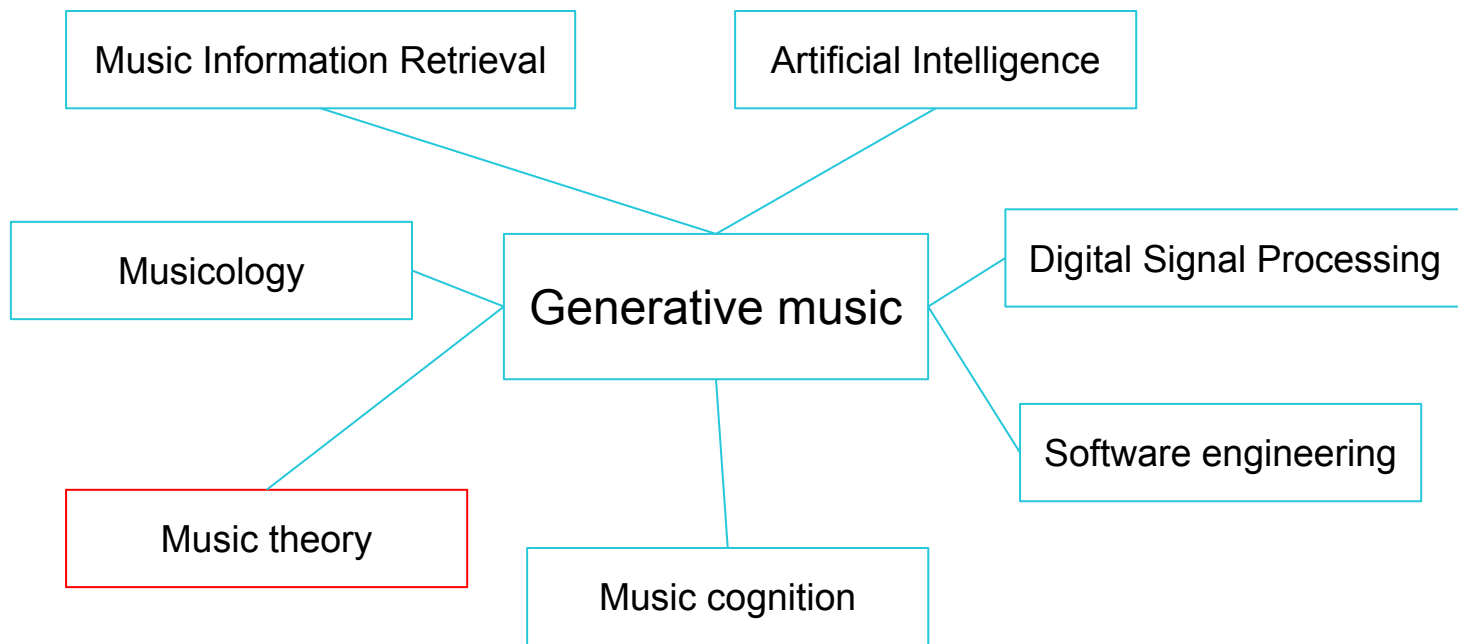


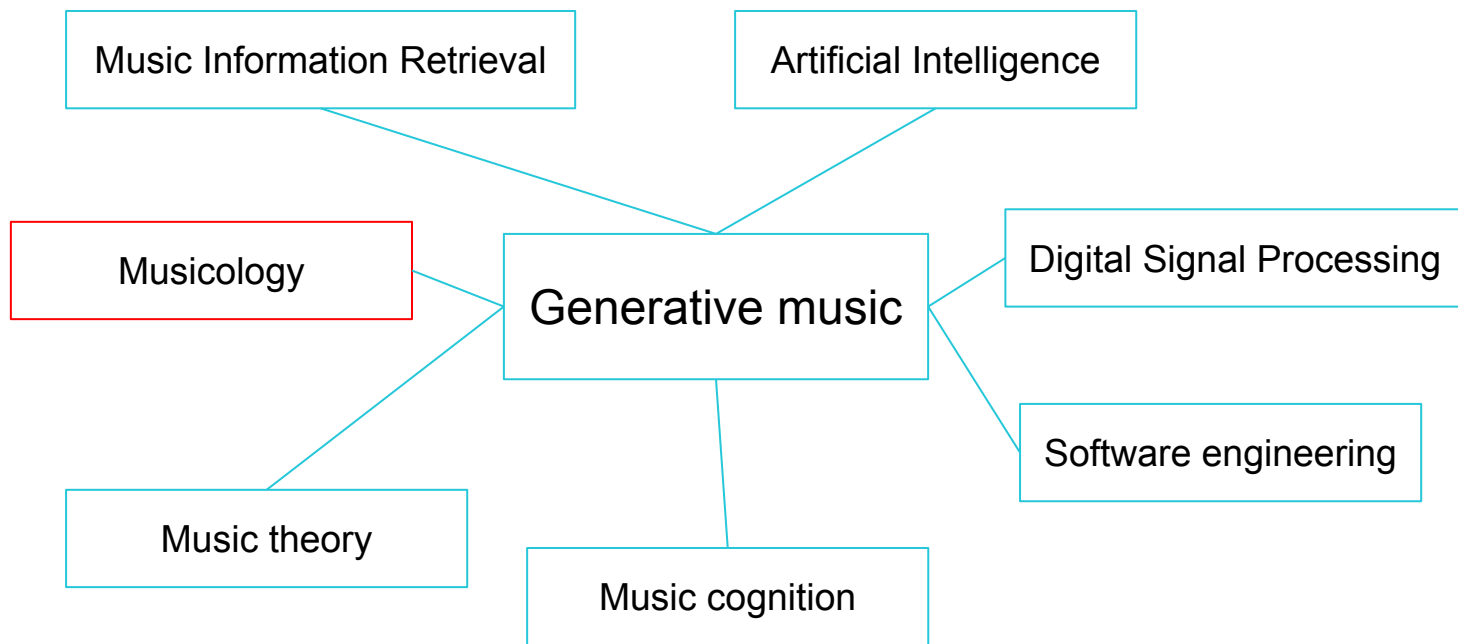


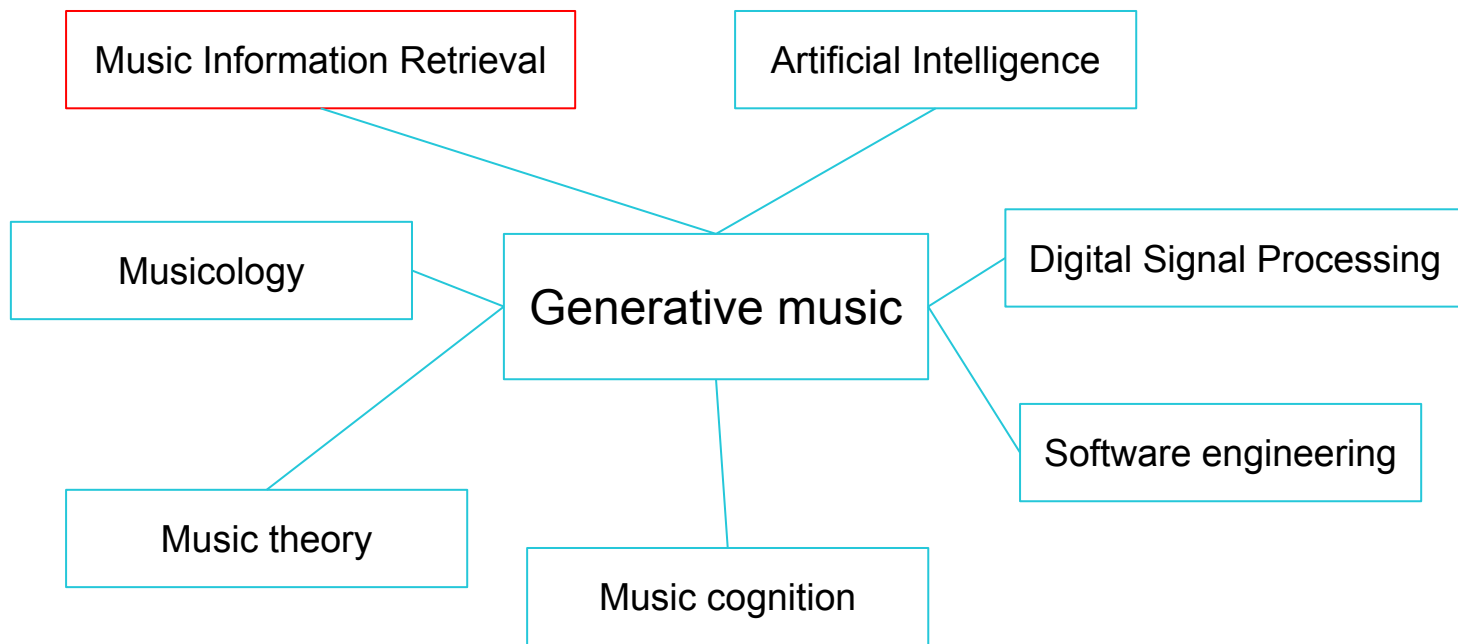












# Some GM challenges

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- How can we represent music?

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- How can we evaluate the output of GM systems?

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- How can we represent music?
- How can we evaluate the output of GM systems?
- Who should evaluate GM systems?

# Key takeaways

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- Creative tasks don't have objective success metrics + are ill defined



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- GM is the art and science of developing computer systems that create music
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- GM is highly interdisciplinary
- GM has lots of open challenges

# What next?

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A brief history of generative music