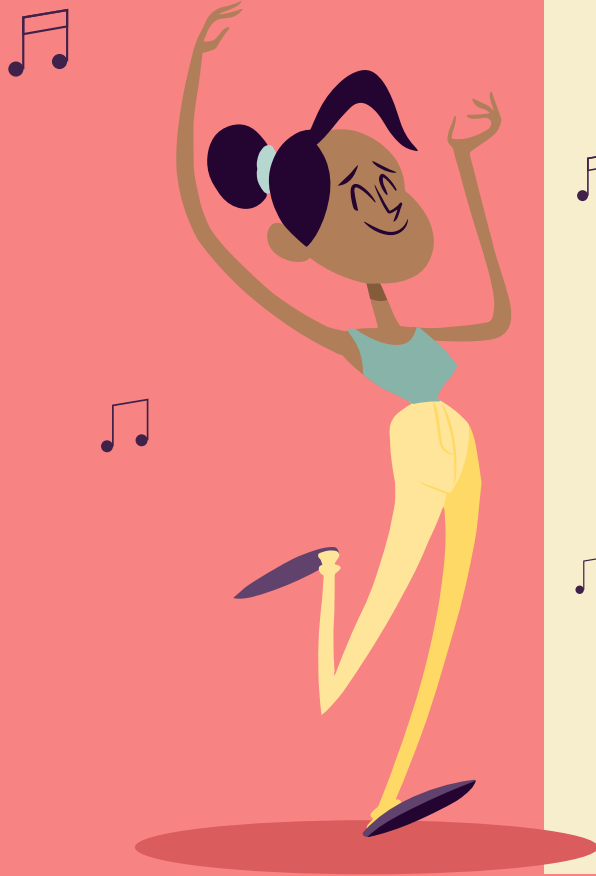


Deep jazz?

MUSIC GENERATION





INTRODUCTION

01

TRAINING

02

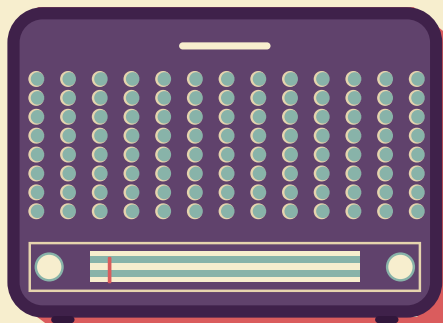
MODELING & METHOD

03

CONCLUSION & FUTURE IMPROVEMENTS

04

01



INTRODUCTION

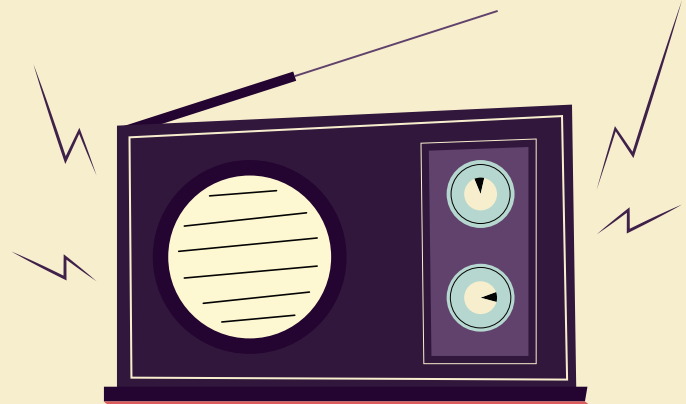
INTRODUCTION

- Human creativity VS AI creativity
- Scraped over 100 MIDI files
From partnersinrhyme.com
- MIDI - sequence of notes, instruments, track structure, tempo, time signature
- Take 5 by Dave Brubeck Quartet
- Using LSTM RNN to generate new music



02

MODELING & METHOD



MODELING & METHOD

The logo for music21, featuring the text "music21" in a monospaced font inside a white rectangular box, which is centered within a larger teal rectangular background.

music21

- Python toolkit designed for music analysis, teaching, and generation
- Used to extract data from MIDI files

The TensorFlow logo, which is an orange icon resembling a stylized 'T' or a neural network node, followed by the word "TensorFlow" in a dark blue sans-serif font.

TensorFlow

- Neural network API that runs on top of TensorFlow
- Allows for quick experimentation with deep neural networks

MODELING & METHOD

Notes →

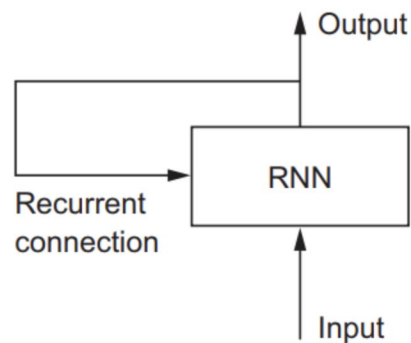
Piano

Chords →



The image shows a musical score for piano in 4/4 time, with a tempo of 120. The score is divided into two staves: the treble staff (labeled 'Notes') and the bass staff (labeled 'Chords'). The bass staff contains a sequence of chords, and the treble staff contains a sequence of notes. Vertical red lines are drawn through the staves at regular intervals, representing time steps. The first time step is marked with a '1' and the second with a '2'. The word 'Piano' is written between the staves.

- Recurrent Neural Network (RNN)
 - Processes sequences
 - Output at each step is dependent on the previous step
- Long Short-Term Memory (LSTM)
 - Recognizes and encodes long-term patterns



MODELING & METHOD

TRAIN

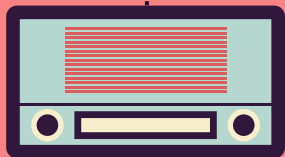
Sequence length = 100

Offset = 0.5

GENERATE

Random starting point

Generated music contains
500 notes



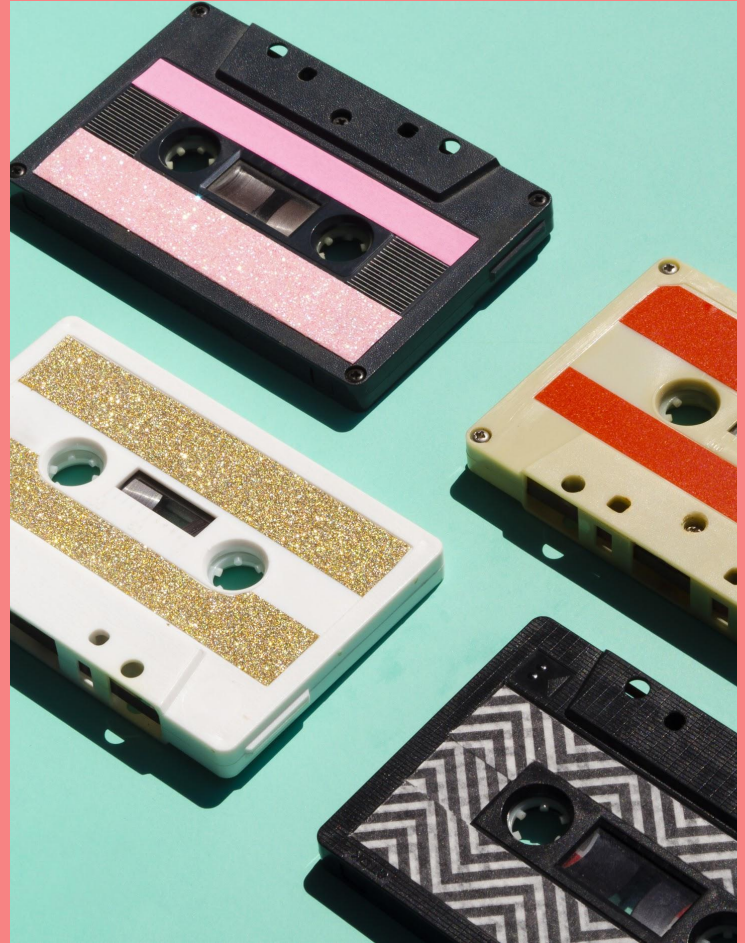
04



RESULTS & CONCLUSION

IMPLICATIONS OF AI IN MUSIC

- Better music recommendations
- Google's Magenta project, Flow Machines
- Collaborative future between artists and AI



IMPLICATIONS OF AI IN MUSIC

Google's Magenta and Sony's Flow
Machines

More compelling
content and
collaborative future



Better music
recommendations;
replaces manual
input

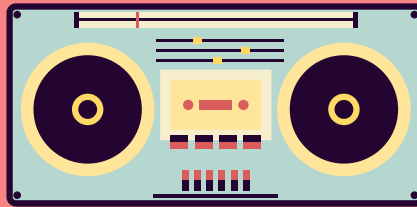


“When words fail. Music speaks.”

HANS CHRISTIAN ANDERSEN



THANK YOU!





ANY QUESTIONS?

linanconviechen@gmail.com
linkedin.com/in/linanc

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What else can be tuned to improve the model

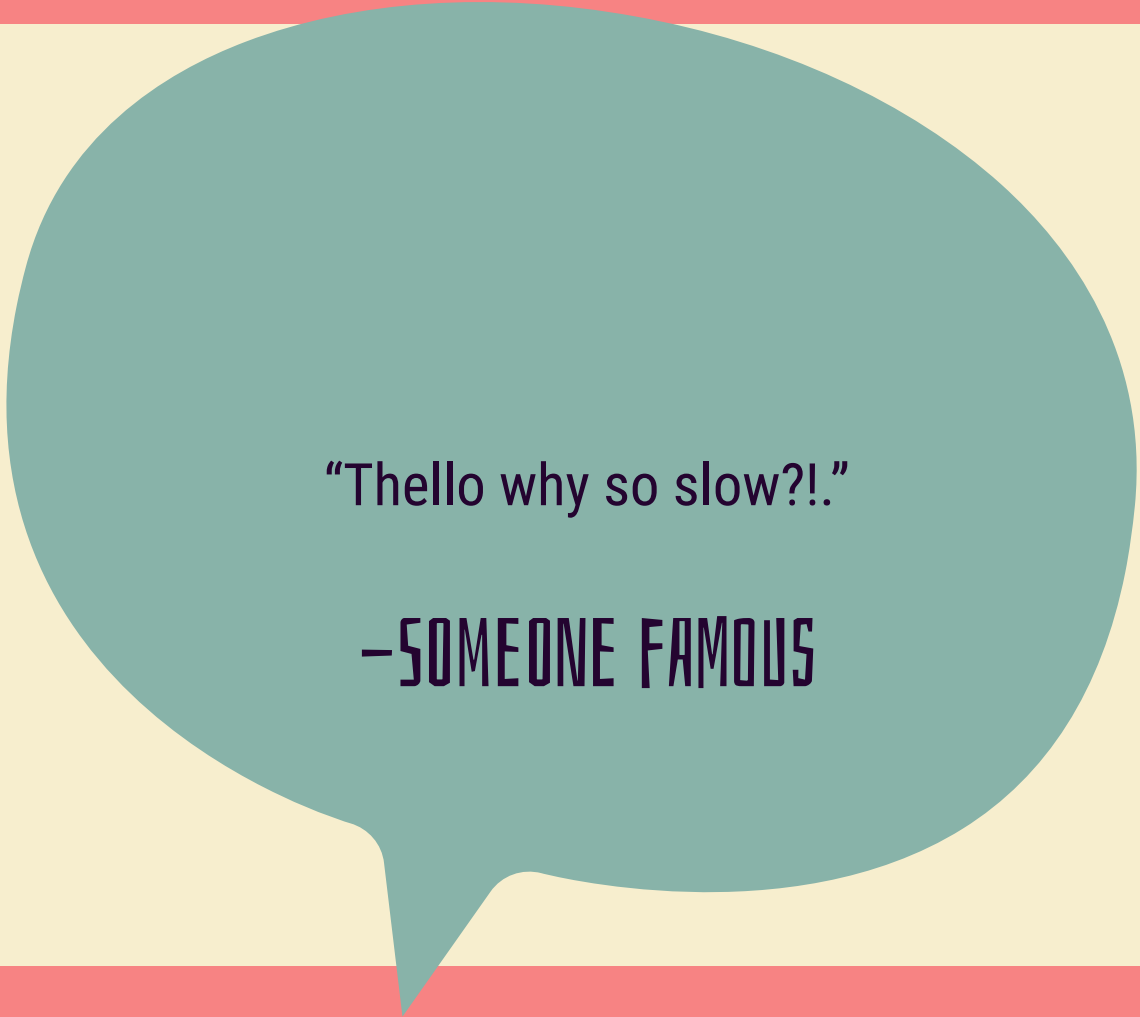
- future of music
 - AI in music
- other use cases

CONTENTS OF THIS TEMPLATE

Here's what you'll find in this **Slidesgo** template:

1. A slide structure based on a multi-purpose presentation template, which you can easily adapt to your needs. For more info on how to edit the template, please visit **Slidesgo School** or read our **FAQs**.
2. An assortment of illustrations that are suitable for use in the presentation can be found in the **alternative resources** slide.
3. A **thanks slide**, which you must keep so that proper credits for our design are given.
4. A **resources slide**, where you'll find links to all the elements used in the template.
5. **Instructions for use**.
6. Final slides with:
 - The **fonts and colors** used in the template.
 - More **infographic resources**, whose size and color can be edited.
 - Sets of **customizable icons** of the following themes: general, business, avatar, creative process, education, help & support, medical, nature, performing arts, SEO & marketing, and teamwork.

You can delete this slide when you're done editing the presentation.



“Thello why so slow?!.”

—SOMEONE FAMOUS

WHOA!

Here you could give a brief description of the topic you want to talk about. For example, if you want to talk about Mercury, you could say that it's the closest planet to the Sun and the smallest one in the Solar System



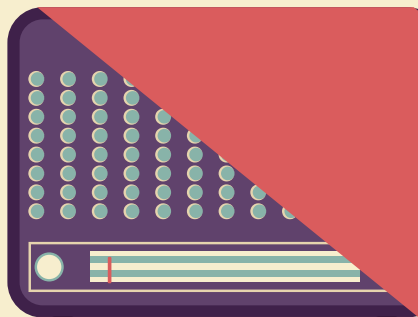
THE SLIDE TITLE GOES HERE!

Do you know what helps you make your point clear? Lists like this:

- They're simple
- You can organize your ideas clearly
- You'll never forget to buy milk!

And the most important thing: the audience won't miss the point of your presentation

01



NAME OF THE SECTION

You could enter a subtitle here if you need it

MAYBE YOU NEED TO DIVIDE THE TEXT

MERCURY

Mercury is the closest planet to the Sun and the smallest one in our Solar System—it's only a bit larger than our Moon

VENUS

Venus has a beautiful name and is the second planet from the Sun. It's terribly hot, even hotter than Mercury

YOU COULD USE THREE COLUMNS, WHY NOT?

MARS

Despite being red, Mars is actually a cold place. It's full of iron oxide dust

VENUS

Venus has a beautiful name and is the second planet from the Sun

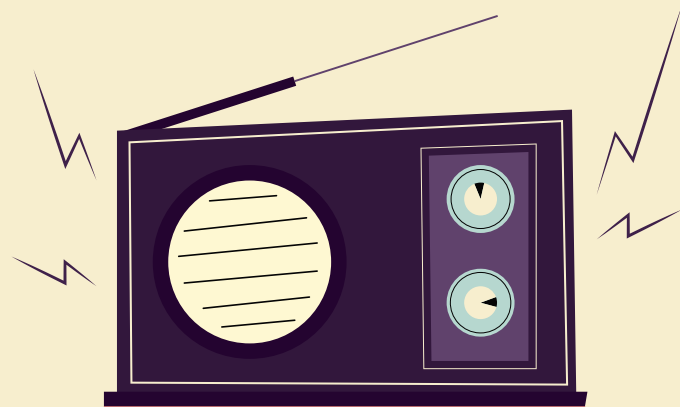
JUPITER

Jupiter is a gas giant and the biggest planet in our Solar System

02

NAME OF THE SECTION

You could enter a subtitle here if you need it





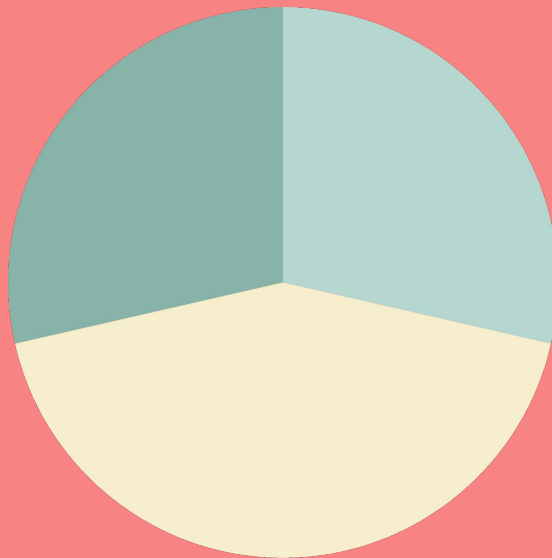
A PICTURE IS WORTH A
THOUSAND WORDS

TO EDIT THE GRAPH, SELECT IT, CLICK THE LINK, CHANGE THE DATA & REPLACE IT

27%

27%

46%



Despite being red, Mars is actually a cold place

Venus is the second planet from the Sun

Mercury is the smallest planet in our Solar System

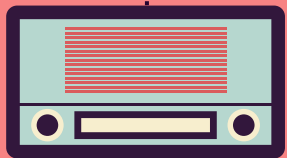
A TIMELINE ALWAYS WORKS WELL

STEP 01

Neptune is the farthest
planet from the Sun

STEP 02

Venus has a beautiful
name, but it's very hot



A TIMELINE ALWAYS WORKS WELL

STEP 03

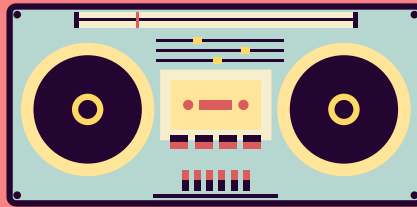
Despite being red, Mars
is actually a cold place

STEP 04

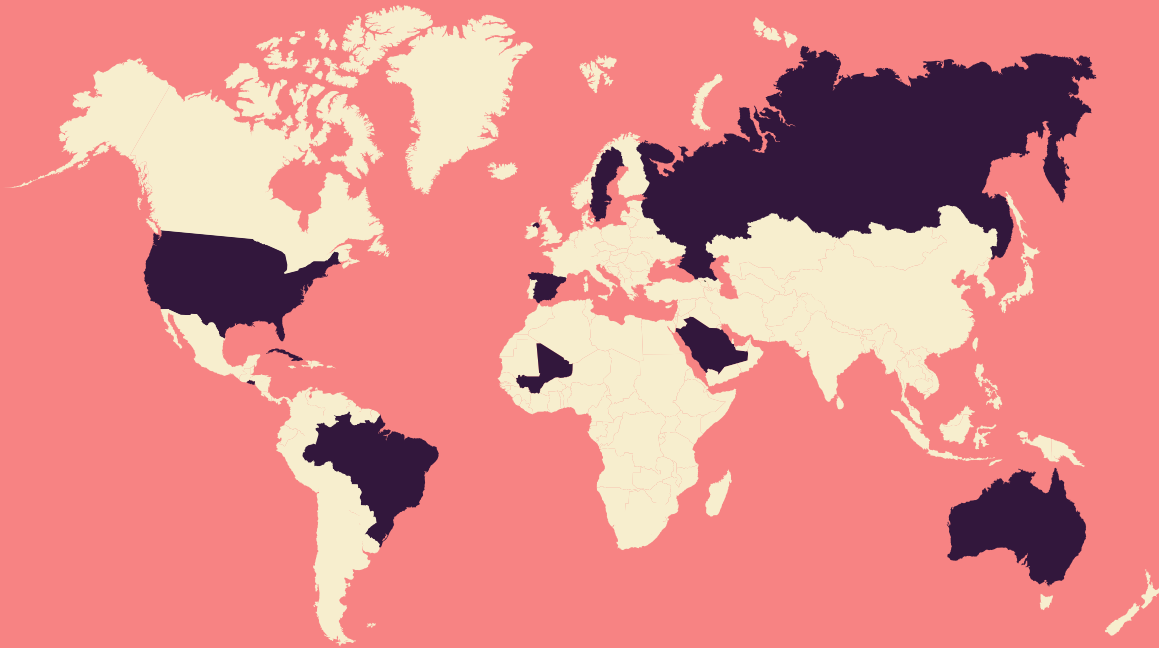
Saturn is composed of
hydrogen and helium



AWESOME WORDS



THIS IS A MAP



Venus has a beautiful name
and is the second planet
from the Sun

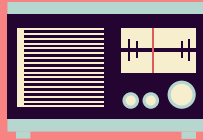
... AND THE SAME GOES FOR TABLES

	01	02	03
CERES	Saturn is a gas giant, composed mostly of hydrogen and helium	Neptune is the fourth-largest planet by diameter in our Solar System	Venus has a beautiful name and is the second planet from the Sun
PLUTO	Despite being red, Mars is actually a cold place full of iron oxide dust	Jupiter is a gas giant and the biggest planet in our Solar System	Mercury is the closest planet to the Sun and the smallest one in our Solar System

NUMBERS

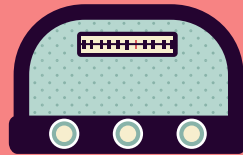
3,000

Despite being red, Mars is actually a cold place



45,000

Mercury is the smallest planet of them all



2,200

Neptune is the farthest planet from the Sun



44,000 +

This is the amount of radio stations in the world

DON'T FORGET WHAT'S IMPORTANT

Mercury is the smallest planet



Despite being red,
Mars is actually a
cold place



Neptune is the
farthest planet from
the Sun

DO YOU PREFER THESE PERCENTAGES?

VENUS

60%

SATURN

20%

MERCURY

80%

SOMETIMES, REVIEWING CONCEPTS IS A GOOD IDEA

01

Despite being red, Mars is actually a cold place

02

Mercury is the smallest planet in our Solar System

03

Saturn is composed mostly of hydrogen and helium

04

Venus is the second planet from the Sun

05

Neptune is the farthest planet from the Sun

06

Jupiter is the biggest planet in our Solar System

OUR SERVICES

\$10

You can explain your
product or your service

Characteristic
Characteristic

BASIC

\$35

You can explain your
product or your service

Characteristic
Characteristic

PRO

\$50

You can explain your
product or your service

Characteristic
Characteristic

PREMIUM

TABLET APP

You can replace the image on the screen with your own work. Just delete this one, add yours and send it to the back



Here is where your presentation begins

WORLD RADIO DAY



DESKTOP SOFTWARE

You can replace the image on the screen with your own work. Just delete this one, add yours and send it to the back

MOBILE WEB

You can replace the image on the screen with your own work. Just delete this one, add yours and send it to the back



FUN FACTS

- Enter here a fun fact about the topic
- Enter here a fun fact about the topic
- Enter here a fun fact about the topic
- Enter here a fun fact about the topic
- Enter here a fun fact about the topic
- Enter here a fun fact about the topic
- Enter here a fun fact about the topic



OUR TEAM

JAMES YELLOW

Here you could give a brief description about
this person

STEVE PATTERSON

Here you could give a brief description about
this person

LAURA ROE

Here you could give a brief description about
this person

TOM ALVAREZ

Here you could give a brief description about
this person



THANKS!



Do you have any questions?

youremail@freepik.com

+91 620 421 838

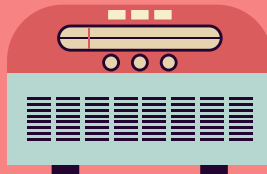
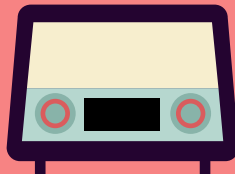
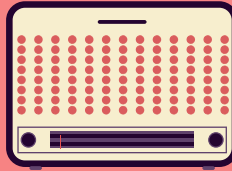
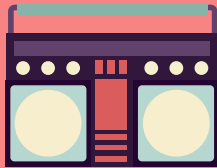
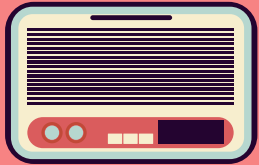
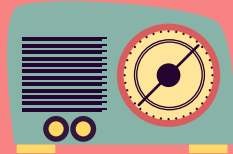
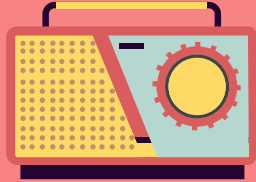
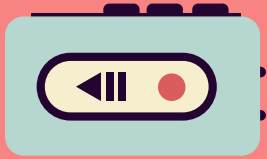
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VECTOR

- [Young people dancing. character design](#)
- [World radio day in vintage style background](#)
- [Vintage radio set vectors](#)
- [Retro radio sets](#)
- [Geometric radio background](#)
- [Radio world day background in flat design](#)
- [Eighties technological objects set](#)
- [Flat retro microphone background](#)

PHOTO

- [Stack up cassettes in light with shadows](#)
- [Old tape on green background with copy-space](#)