SPECTACOLO SOUND DESIGN COURSE

HOSTED BY MASHIRIKA PERFORMING ARTS &MEDIA COMPANY

MULIKA STUDIOS
Illuminating Sound

TRAINING BY MULIKA STUDIOS

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MASHIRIKA
PERFORMING ARTS AND MEDIA COMPANY

HOUSE RULES

- Have you full names registered on your zoom
- Make sure to join early to enable us start on time
- Keep mics mute unless you are saying something
- We are registering attendance for every class
- We shall be having assignments
- Make research your best friend

What is sound
Sound for Theatre

- What is sound
- Can anyone tell us the definition of sound,
- What do you know about sound
- What is sound design

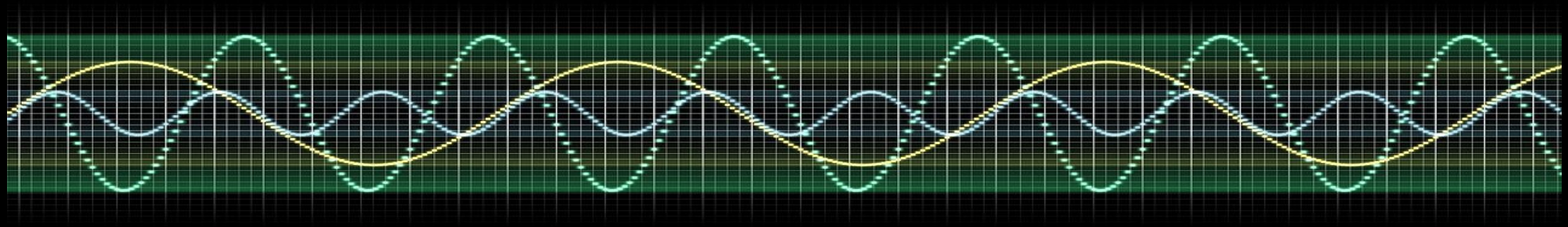
What is sound ?

What is sound and how does it propagate

- Sound is Vibrations that travel through the air or another medium and can be heard when they reach the listener’s ear.
- Sound is pressure, generally a movement of air molecules travelling from the sound source to the listener’s ear.
- Sound travels from one point to another similar to the way that waves ripple outward from where a stone has been dropped into a pond.
- Sound Travels through a medium such as air, water, wood, metal .

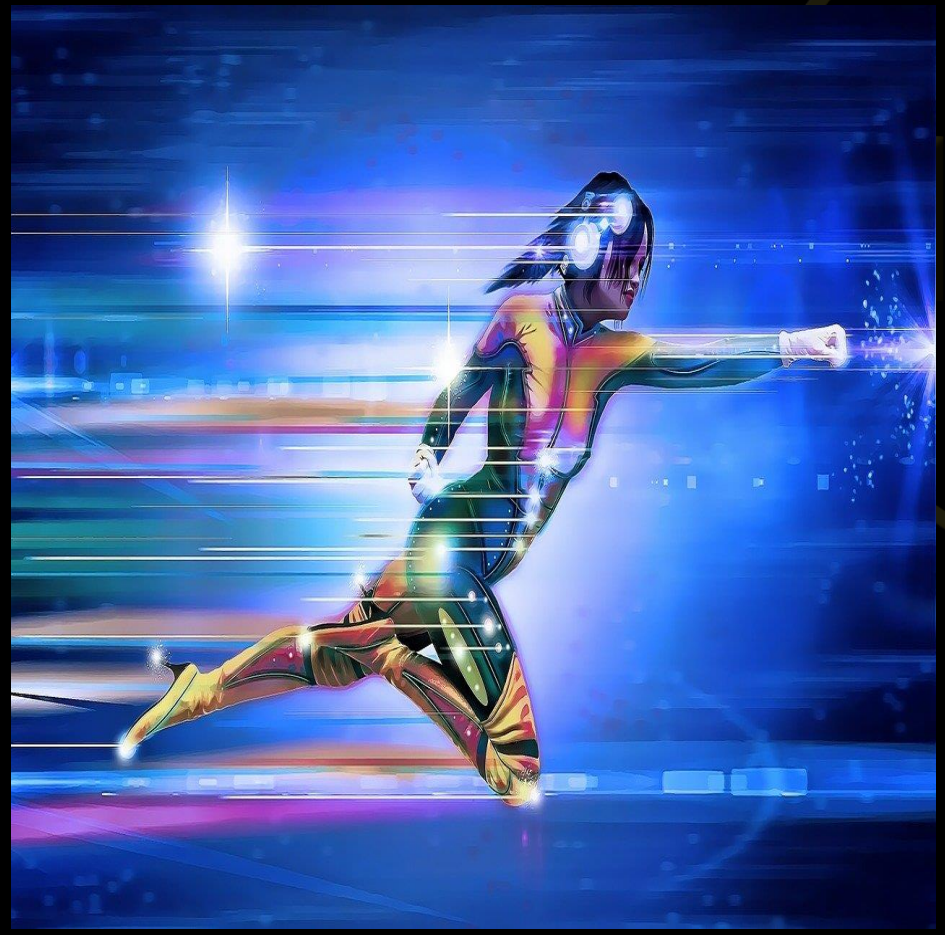
What is sound ?

What is sound and how does it propagate



- Sound travels at different speeds through different densities of material.
- Speed of Sound: The speed of sound in air at room temperature (20°C) is approximately 343 m/s or 1,125 ft/s . The speed can vary slightly depending on factors like temperature, humidity, and air pressure.

What is sound ?
Sound speed



- Kampala to Kigali is approximately 377 km
- Sound takes approximately 18 minutes and 19 seconds to travel from Kampala to Kigali, while light takes just 1.26 milliseconds to cover the same distance.
- SOUND IS MESSY – it spreads out, bends around corners, bounces of surfaces. An appreciation of this will always help in finding the best way to capture it.

Properties of Sound

- Frequency is the number vibrations per second. The unit for frequency is hertz (abbreviated Hz, also used with the “k” operator for “kilo” to indicate thousands of Hz: 20 kHz is shorthand for 20,000 Hz).
- **Human hearing ranges from 20Hz to 20kHz**. Anything above or below this is inaudible to the human ear. Frequencies above this are ultrasonic, frequencies below are subsonic.
- Amplitude / Volume

Sound is measured in decibles **db**

Amplitude is the intensity of sound. In professional sound circles, this effect is usually given the name level. A director says to a mixer “turn up the level,” not “turn up the volume,” if he or she wants to be taken seriously.

SOUND FOR THEATRE

Careers in sound for theatre

SOUND FOR THEATRE

Sound Designer

Sound design refers to the act of selecting and arrangement of sound effects, music, and props that generate sound (foley) to effectively create an enjoyable listening experience for the audience.

Sound design is done for theatre plays, musicals, films, animations, video games and documentaries.

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Live Performance Engineers

A live performance sound engineer is responsible for managing the sound during a live event. They handle tasks like mixing audio from various sources (like instruments and vocals), ensuring a good balance across the venue, preventing feedback, and adjusting levels throughout the performance to maintain high sound quality for the audience.

A systems engineer, on the other hand, sets up and optimizes the sound system before the live event. They ensure that all the equipment, like microphones, speakers, amplifiers, and mixing consoles, are correctly connected and functioning. Their job includes tuning the system for the acoustics of the venue to ensure even sound distribution and optimal performance of the audio system during the event.

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Cue Players/ Playback operator:

Cue players are responsible for triggering specific sound effects, music, or audio cues during a live theater performance. They ensure the right sounds happen at the correct moments to enhance the narrative. This role requires attention to timing and coordination with other production elements.

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Music Director:

The music director oversees all musical aspects of a production. They are responsible for arranging, conducting, and sometimes composing music for theater, film, or live performances. They also collaborate with actors and musicians to ensure the music aligns with the director's vision.

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Audio Editor:

Audio editors work on refining and assembling recorded audio. They clean up dialogue, remove unwanted noise, adjust volume levels, and ensure seamless transitions between audio clips. In post-production, they are crucial to maintaining clarity and enhancing the overall sound quality.

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Foley and Sound Effects Artists:

Foley and Sound Effects Artists: These artists create or recreate sound effects that match the visual elements of a film, TV show, or theater production. Foley artists physically recreate sounds like footsteps or door creaks, while sound effects artists may design more complex or fantastical sounds using various audio techniques and software.

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Composer:

A composer writes original music tailored to a project, be it for film, theater, or TV. They craft the musical score to reflect the emotional tone, story, and characters, working closely with directors and producers to ensure the music enhances the narrative

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Mixing and Mastering Engineer:

Focuses on balancing all audio elements (dialogue, music, sound effects) in post-production, ensuring everything blends harmoniously. They control volume levels, spatial placement, and overall sound quality. They also mix and master pre recorded productions like, Children's plays, puppetry etc.

All their work is handed over to the Audio supervisor and then to the cue and playback operators.

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Sound Supervisor:

Oversees all aspects of sound in a production, coordinating between sound designers, mixers, composers, and editors. They ensure the audio meets the director's vision and is executed smoothly

Assignment

Sound production terminologies:

- Frequency
- Amplitude
- Spl
- Wave form
- Foley
- Sound effects
- Cues
- Recording
- Croosfade
- Impulse response
- Sample rate and bit depth
- Phase
- Microphones
- Playback software
- Mono/ Stereo
- Dubbing
- ADR
- Filter
- Feedback
- Fader
- Compression
- Signal to Noise ratio
- Equalization
- Polar patterns
- Mic Placement
- Rustle
- Plosives
- Sibilance
- Immersive technology
- Gain
- Latency
- Looping
- Attack
- Attenuation
- Automation
- Balanced signal
- Bus
- Clipping
- Db
- Hertz
- Di Box
- MIDI
- Gate
- Panning

Audio Equipment

Basic Studio setup

- Next class we shall explore the basic studio setup, This should give us an idea of how we can interact and manipulate Audio.
- We shall understand the signal flow from analogue to digital.
- Research about the basic setup of the studio which must include, Input devices, interfaces and Processors, and Outputs.

Have a blessed week

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