



Making Music without Threshold

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Learning Is Changing

Computer class 60 years ago

To the Cloud

Background

- applications are no longer locally in the computer, services are, instead, in the Internet and we'll access them via browser
- data resources and documents are there, too
- externalized technical support

To the Cloud

- ever growing variety of resources
- provided by scientific societies, commercial companies, multimedia artists, enthusiasts...
- one has to filter resources
- simple and explicit, better for pedagogical uses

To the Cloud

- notation, composing, accompaniment, arranging, audio laboratory...
- tools for several teaching positions and needs
- support for pluralistic attitude in music education

To the Cloud

- ① emphasis on communities
- ① communities are easily integrated while both tools and products are in the net
- ① modern music education benefits the means: make together, publish to each other

Pros in the Cloud

- immediate access to the tools, no downloading and installation
- no licences, no updating, no backup copying
- tools work everywhere where is a computer and Internet access
- work similarly on different platforms and operating systems (with some exceptions), cont'd.

Pros in the Cloud

- normally the use is free at the basic level
- integrated support for communities (publishing, delivery, collaboration)
- easy access to (nearly) everyone
- empowerment-as-enablement: tools which would not be possible to use otherwise (virtual instruments, orchestras, musicians); enable processes like working in audio laboratory (cont'd)

Pros in the Cloud

- 👁 empowerment-as-enablement: enables one's own output, cultural production like composing, arranging, playing

Cons in the Cloud

- 👁 need of access to Internet, operations depend on the bandwidth in use
- 👁 possible needs of plug-ins
- 👁 browser incompatibilities
- 👁 registrations, sign-ups
- 👁 commercial intrigues functions

Cons in the Cloud

- 👁 application appears, application disappears
- 👁 may be labile
- 👁 no localization

No Threshold

With Keyboard

Fill the Grid

The Ambience & Groove

Notation

Loops & Sequencing

Creating & Collaborating

No Threshold

Touch Pianist



Virtual Drumming



<https://www.virtualdrumming.com>

Gregorian Voices



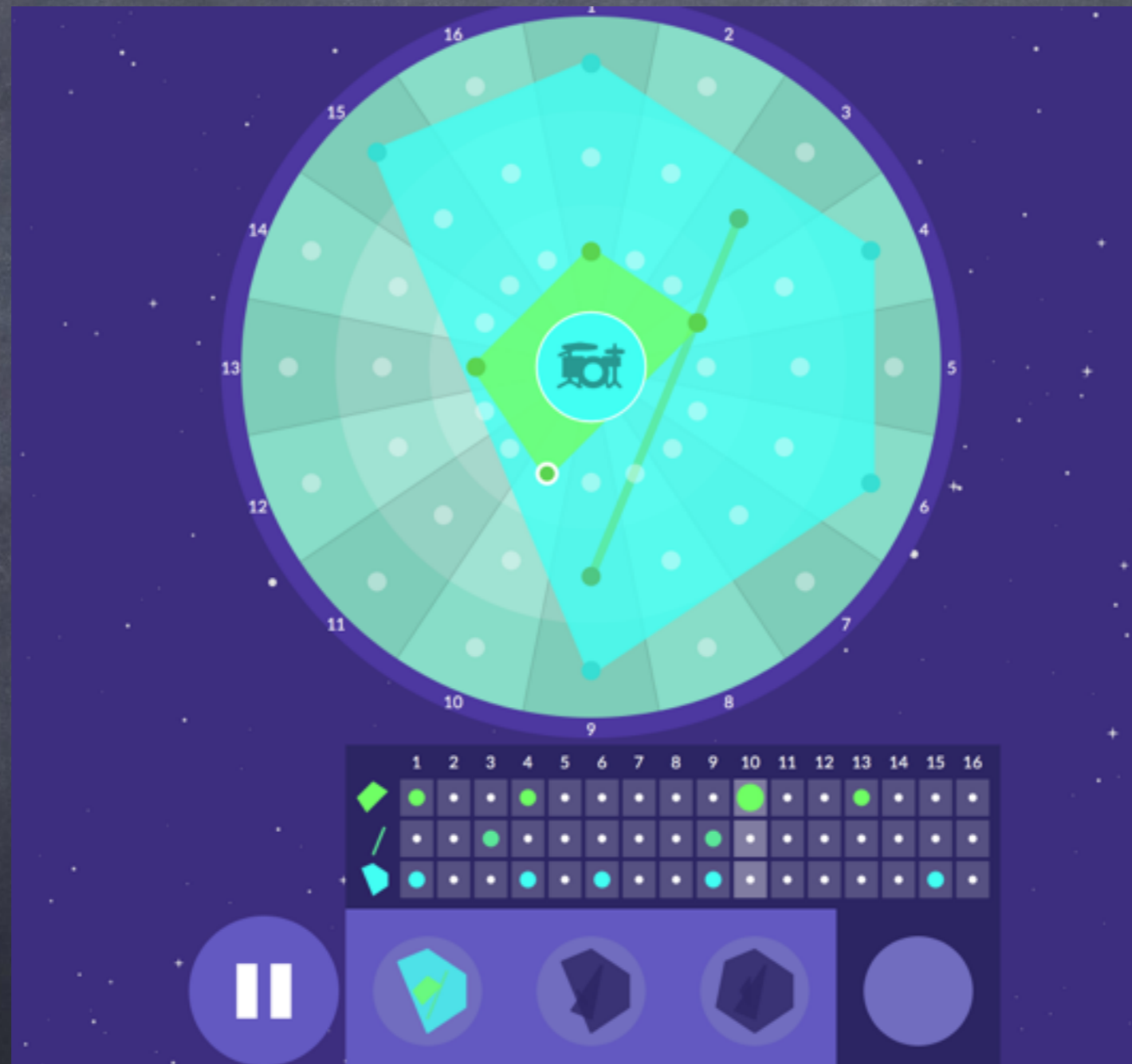
Viktor NV-1



Incredibox



Groove Pizza

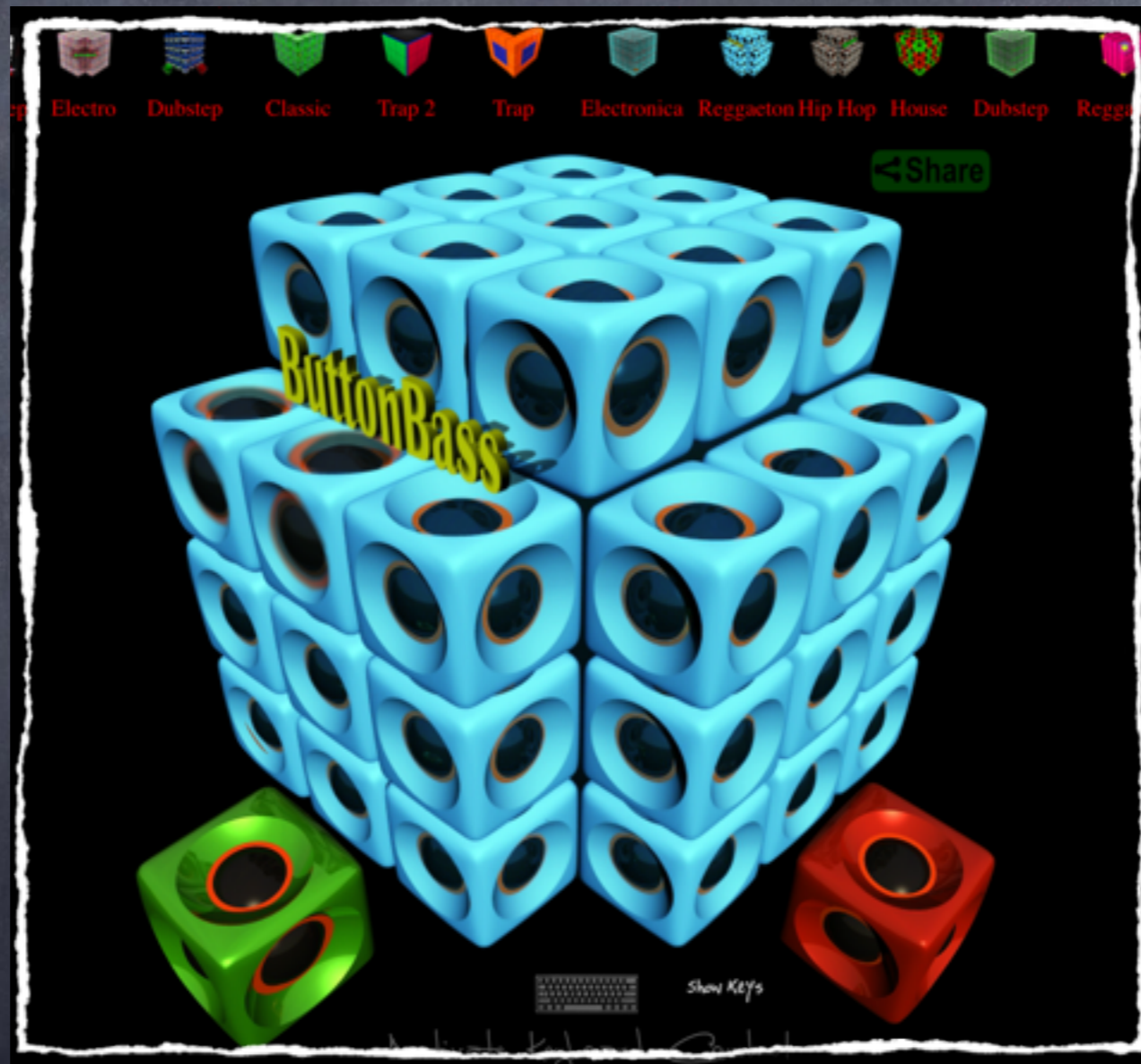


With Keyboard

Tony-B machine

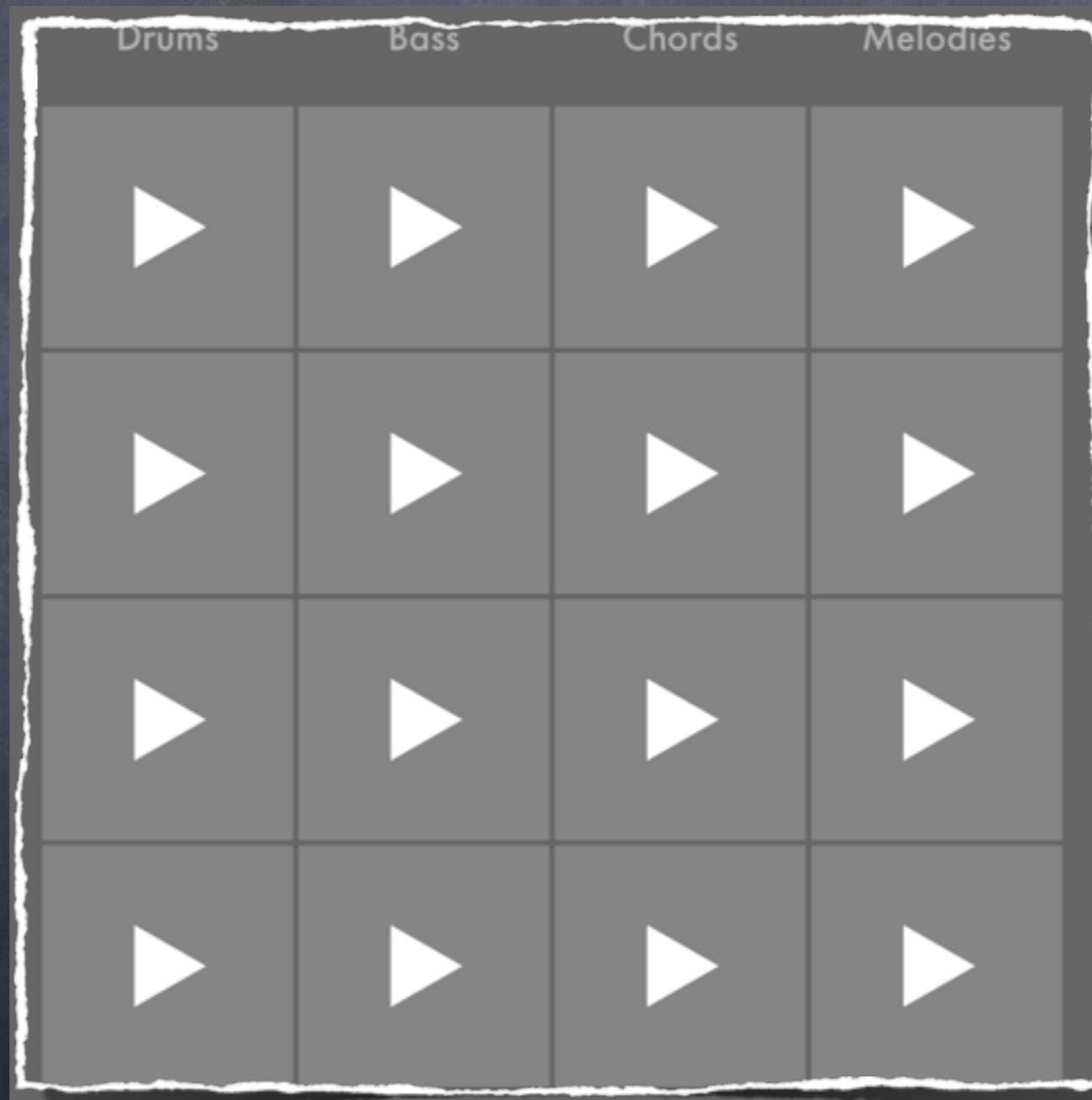


Button Bass

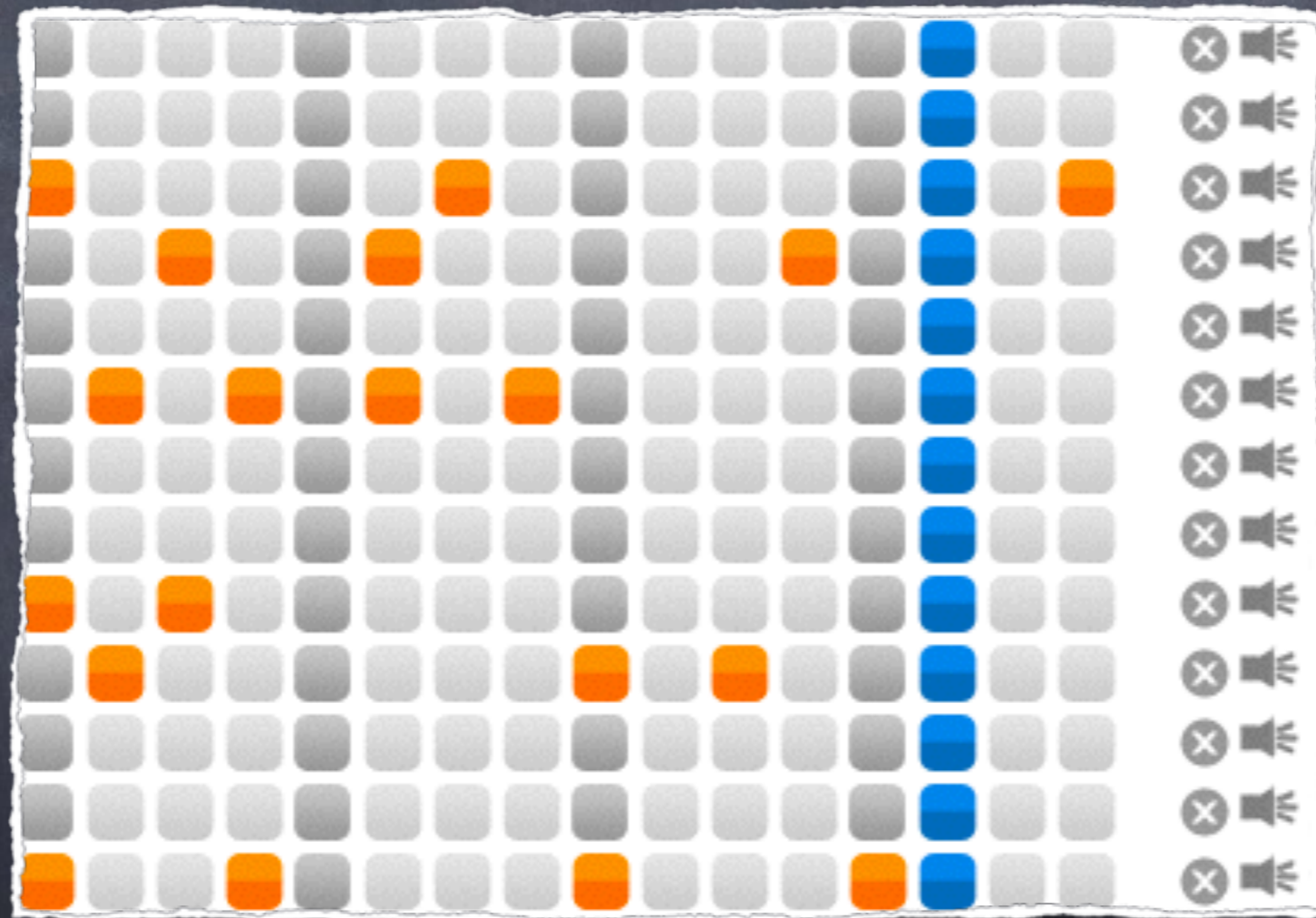


Fill the Grid

Ableton education



Beatlab



The Ambience & Groove

Ambient Mixer



YouDJ



Notation

Noteflight

The screenshot displays the Noteflight software interface. At the top, there is a toolbar with icons for Play, Transcribe, Record, Save, Instruments, Sync Audio, Page View, Zoom, Keyboard, Help, and Connect. Below the toolbar is a control bar with various settings: score, tempo (120), text (la- T f A7 A), duration, pitch, and measure. The main area shows a musical score for 'Taikahuilu'. The title 'Taikahuilu' is centered, with '(Lyricist)', '(Subtitle)', and '(Composer)' fields below it. The score is in 4/4 time and features a piano part with a treble and bass clef. The lyrics are: 'Wie stark ist nicht dein Zau - ber - ton weil, hol - de Flö - te, hol-de'.

noteflight

Play Transcribe Record Save Instruments Sync Audio Page View Zoom Keyboard Help Connect

score tempo 120 text la- T f A7 A duration pitch measure

Taikahuilu

(Lyricist) (Subtitle) (Composer)

(Part)

Wie stark ist nicht dein Zau - ber - ton weil, hol - de Flö - te, hol-de

Loops & Sequencing

JamStudio

The screenshot displays the JamStudio software interface, which is divided into four main sections:

- SCORE:** The top-left section shows a musical score for an "untitled" piece. It features four staves with chord names: G, Em, G, A; Am, F, G, G; Dm, D, Am, Am; and G, D, D, G. The score is set to 3/4 time. Controls include "INSERT" and "DELETE" buttons, and a "Play Page Order" field.
- CHORDS:** The top-right section displays a list of chords in the key of G. It includes a "Variations" column with options like Em, Fm, F#m, Gm, G#m, Am, A#m, Bm, Cm, C#m, Dm, and D#m. A "PREVIEW MODE" button is located at the bottom of this section.
- MIXER:** The bottom-left section shows a list of instruments with volume sliders. The instruments listed are Guitar.Classic, Drums.Jazz Shot, Bass.Gallop, EGuitar.Convertible, EGuitar.Diamonds, EGuitar.Clean and Dirty, Piano.Titanic, and EPiano.Lullaby. A "TEMPO 89" indicator and playback controls (stop, play, next) are also present. A "Loop Page" checkbox is checked.
- SOUNDS:** The bottom-right section displays a list of drum sounds. The "Drums" dropdown menu is open, showing options: ROCK, ALT ROCK, TECHNO, and COUNTRY. The sound list includes: Sit Back, Crashin, Poppy, Jazz Shot, Bouncy Ball, March, Silk, Groovin, Slip N Slide, Sideshow, Big Top, Trot, Cleopatra, and Dallas. A "PREVIEW MODE" button is located at the bottom of this section.

Sound Infusion

A promotional banner for Sound Infusion. The background is a vibrant mix of orange and purple, framed by a white, torn-edge border. At the top, a xylophone is visible. The central text reads 'Sound Infusion' with a logo of concentric white circles to the left. Below this, the words 'MUSIC AND CULTURE' are stacked in large, white, sans-serif capital letters. At the bottom, three buttons are arranged horizontally: 'FREE DEMO' in a blue box, 'LOGIN' in an orange box, and 'REGISTER NOW' in a blue box. A pair of headphones is partially visible on the right side.

Sound Infusion

MUSIC
AND
CULTURE

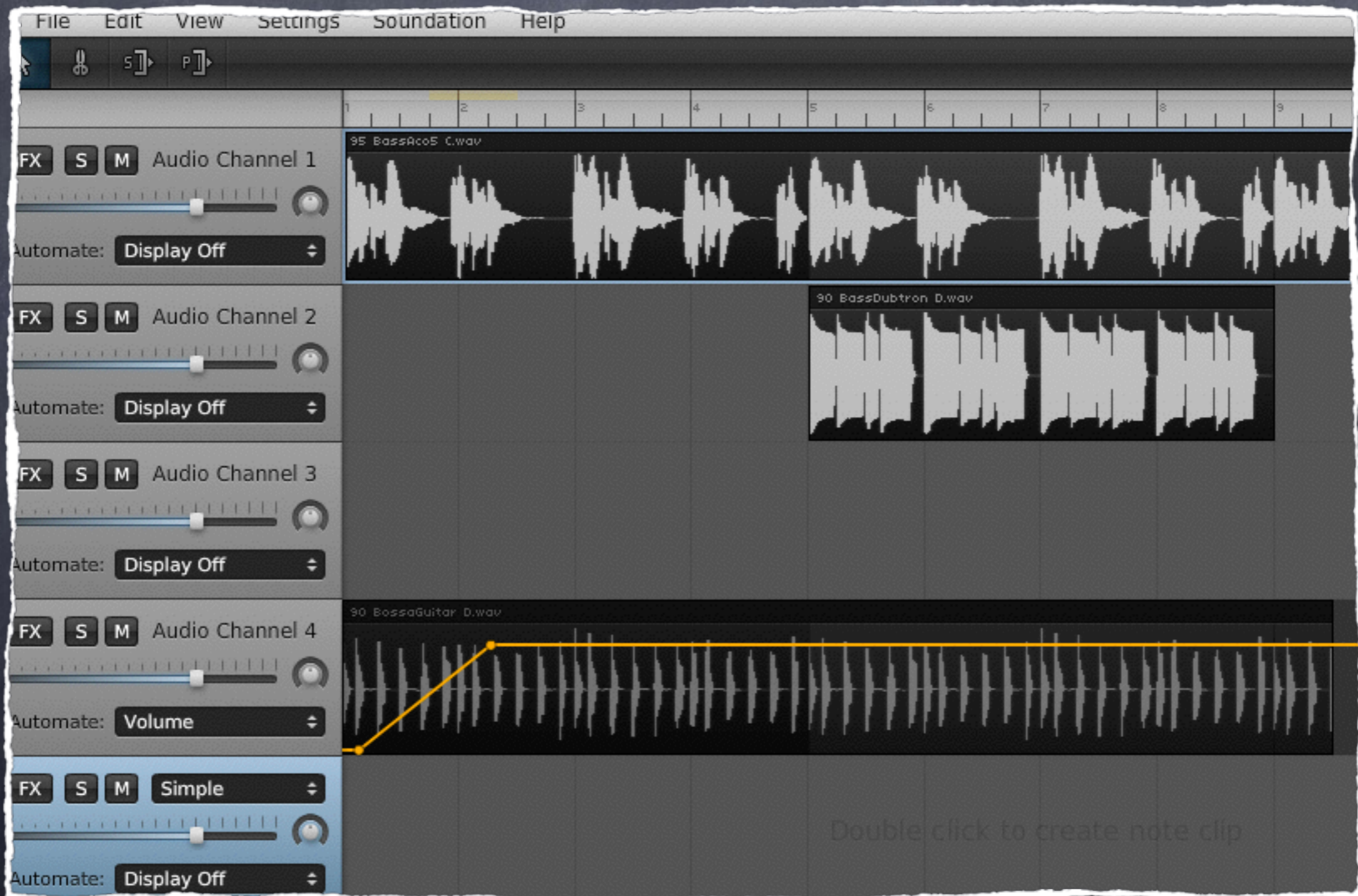
FREE DEMO LOGIN REGISTER NOW

<https://soundinfusion.com.au>

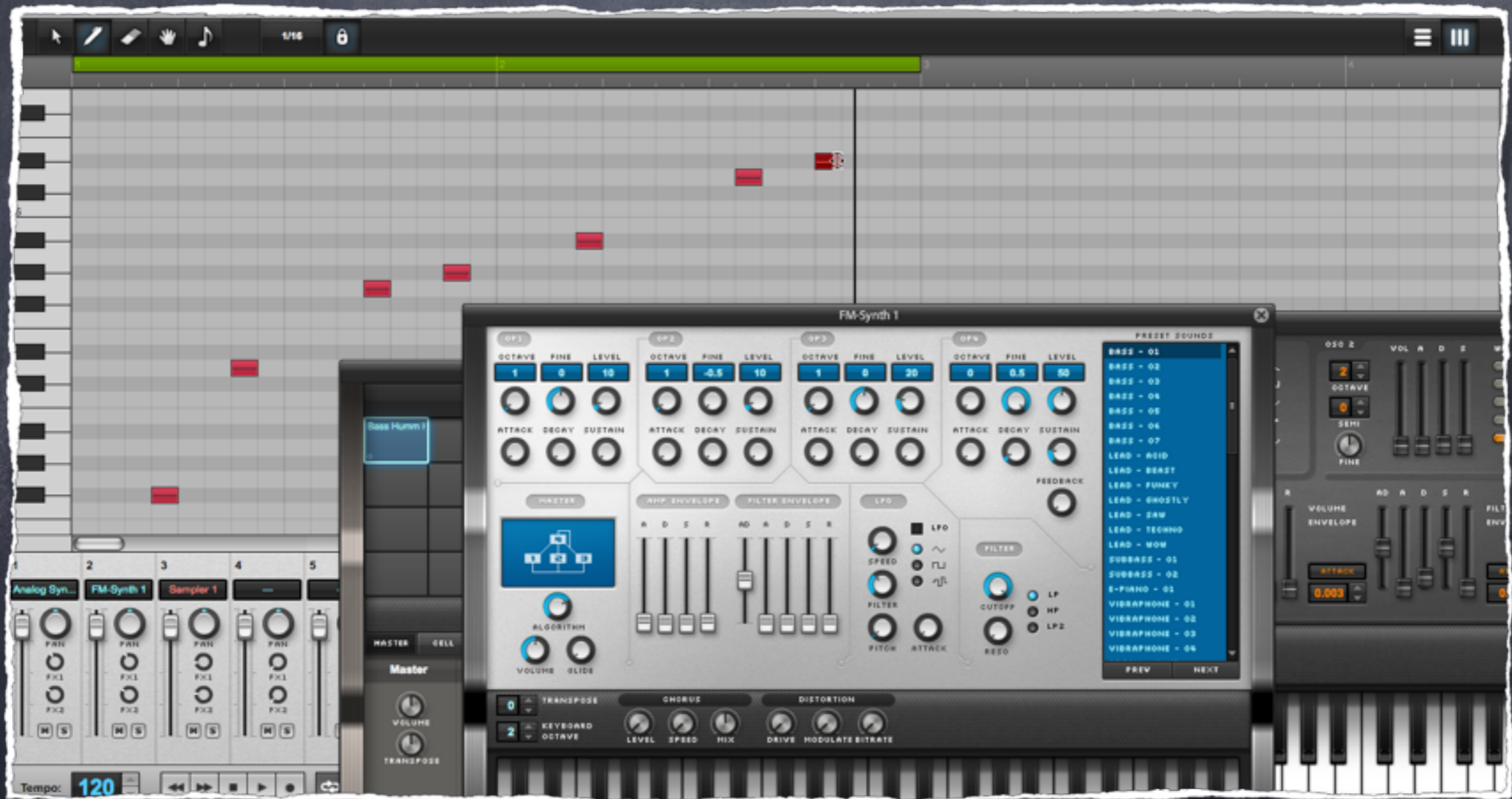
Looplabs



Soundation



Audio Sauna



Audiotool



Creating & Collaborating

Snapjam

00:00:08.589

Sounds Chat

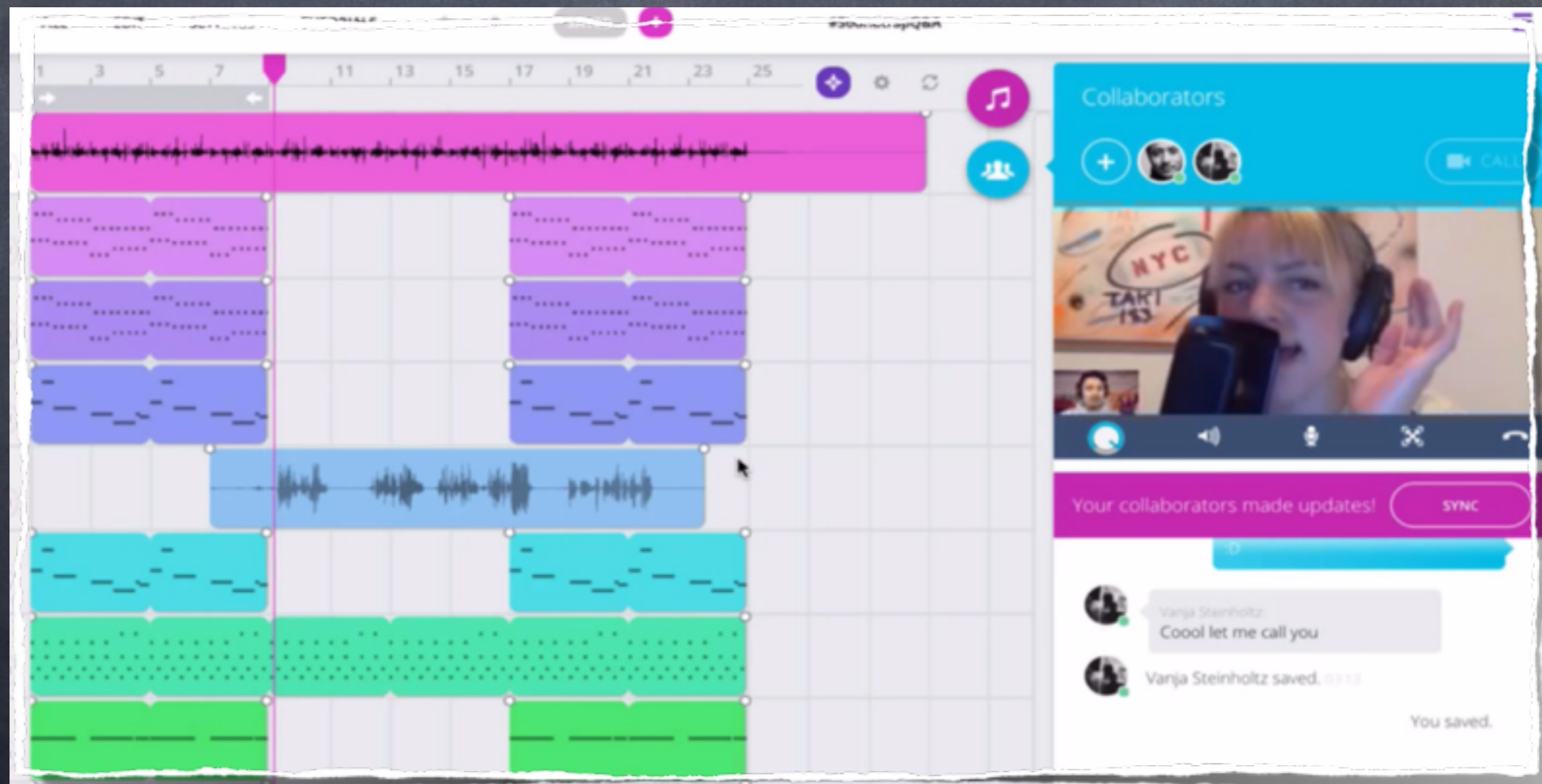
rasscgna2	00:00:24.010
rock5 D 140bpm	00:00:27.450
100bpm_busybossabe...	00:00:28.840
4_EDM busy groove	00:00:32.550
4_EDM busy groove	00:00:32.550

When (sec) Volume

Trim 19.6143 100.0000

Delete

Soundtrap



Bandlab

The screenshot displays the Bandlab web interface, a digital audio workstation (DAW) for browser-based music creation. The interface is divided into several key sections:

- Top Bar:** Contains playback controls (play, stop, undo, redo), a digital display showing 00:00.0, tempo set to 120 bpm, and time signature 4/4. It also includes a volume slider and a download button.
- Track List (Left):** Lists six tracks with their respective icons and settings:
 - Funky Moving Guitar (red waveform)
 - Dance The Night Away B... (blue waveform)
 - Good Lovin' Guitar (purple waveform)
 - Pop Beat 01 (pink waveform)
 - Hard Guitar (green waveform)
 - Track (empty)
- Timeline (Center):** A horizontal grid showing the arrangement of audio loops for each track across 9 measures.
- Loop Packs (Right):** A vertical list of loop packs, each with a play button, title, description, and '24 Loops' count:
 - Grime: Grit & Grime
 - Electronic Fusion: Tweelectronics!
 - Funk: Get your body moving!
 - Minimal: Minimal soundscapes and master beats.
 - Trap Pop
- Virtual Keyboard (Bottom Center):** A pop-up window titled 'Track' that allows for MIDI input. It features a piano keyboard with keys labeled with letters (S, D, G, H, J, L, 1, 3, 4, 5, 7, 8, 0) and numbers (Z, X, C, V, B, N, M, ., -, Q, W, E, R, T, Y, U, I, O, P). It also includes controls for 'Piano' and 'Grand Piano' sounds, 'WEB MIDI' status, 'Fx: None', 'OCTAVE' (-2+), and 'SUSTAIN' (up/down arrows).

