



# From Large Ensembles to Video Games: Technology in Music Education

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# What's the plan?

- ▶ Technologies in Large Ensembles
- ▶ Video Games in Music Education
- ▶ Augmenting Musicianship
- ▶ How do you...?
- ▶ Questions?

# How to reach the resources

- ▶ [www.JaredOLEary.com](http://www.JaredOLEary.com)
  - ▶ Music Education Presentations
  - ▶ From Large Ensembles to Video Games

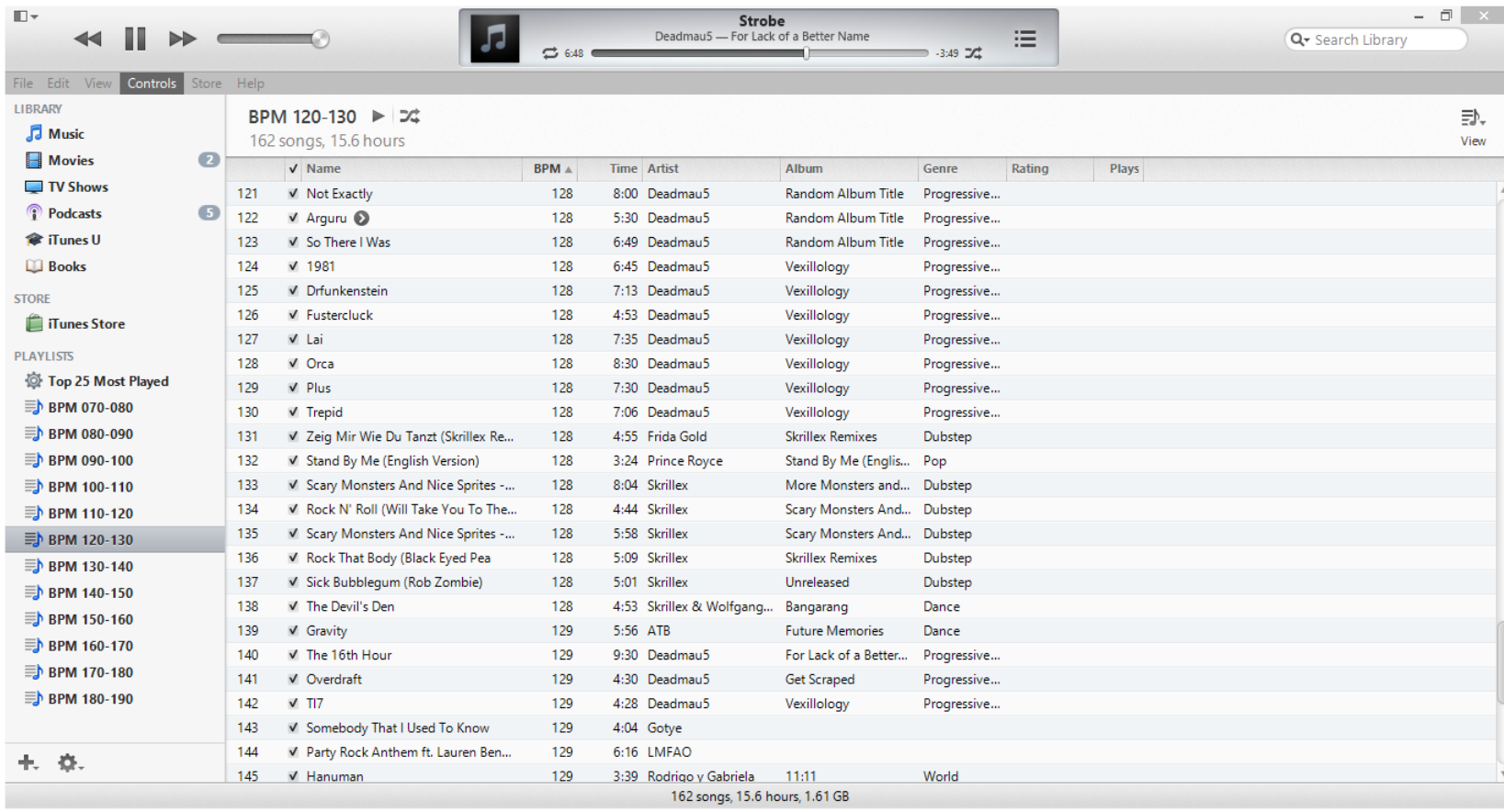




# Technologies in Large Ensembles

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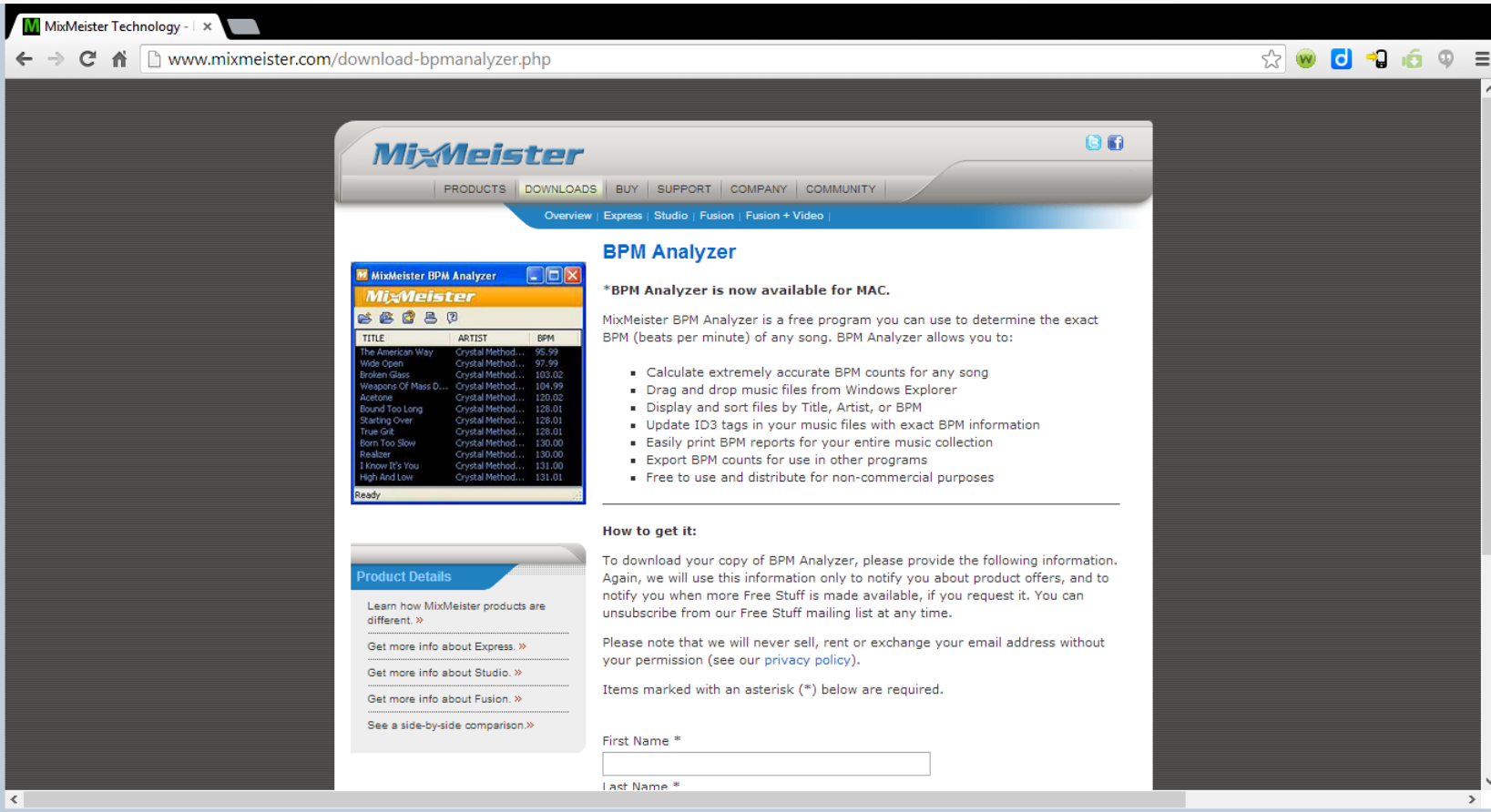
# Stepping off the podium: MP3 Players



The screenshot shows the iTunes application window. At the top, there is a playback control bar with a play button, a progress slider, and a song title "Strobe" by Deadmau5. Below this is a menu bar with "File", "Edit", "View", "Controls", "Store", and "Help". The main interface is divided into a left sidebar and a main content area. The sidebar contains sections for "LIBRARY" (Music, Movies, TV Shows, Podcasts, iTunes U, Books), "STORE" (iTunes Store), and "PLAYLISTS" (Top 25 Most Played, BPM 070-080, BPM 080-090, BPM 090-100, BPM 100-110, BPM 110-120, BPM 120-130, BPM 130-140, BPM 140-150, BPM 150-160, BPM 160-170, BPM 170-180, BPM 180-190). The main content area displays a playlist titled "BPM 120-130" with 162 songs and 15.6 hours of music. The playlist is shown in a table view with columns for Name, BPM, Time, Artist, Album, Genre, Rating, and Plays. The table lists 15 songs, including "Not Exactly", "Arguru", "So There I Was", "1981", "Drfunkenstein", "Fustercluck", "Lai", "Orca", "Plus", "Trepid", "Zeig Mir Wie Du Tanz (Skrillex Re...", "Stand By Me (English Version)", "Scary Monsters And Nice Sprites -...", "Rock N' Roll (Will Take You To The...", "Scary Monsters And Nice Sprites -...", "Rock That Body (Black Eyed Pea", "Sick Bubblegum (Rob Zombie)", "The Devil's Den", "Gravity", "The 16th Hour", "Overdraft", "T17", "Somebody That I Used To Know", "Party Rock Anthem ft. Lauren Ben...", and "Hanuman".

	Name	BPM	Time	Artist	Album	Genre	Rating	Plays
121	Not Exactly	128	8:00	Deadmau5	Random Album Title	Progressive...		
122	Arguru	128	5:30	Deadmau5	Random Album Title	Progressive...		
123	So There I Was	128	6:49	Deadmau5	Random Album Title	Progressive...		
124	1981	128	6:45	Deadmau5	Vexillology	Progressive...		
125	Drfunkenstein	128	7:13	Deadmau5	Vexillology	Progressive...		
126	Fustercluck	128	4:53	Deadmau5	Vexillology	Progressive...		
127	Lai	128	7:35	Deadmau5	Vexillology	Progressive...		
128	Orca	128	8:30	Deadmau5	Vexillology	Progressive...		
129	Plus	128	7:30	Deadmau5	Vexillology	Progressive...		
130	Trepid	128	7:06	Deadmau5	Vexillology	Progressive...		
131	Zeig Mir Wie Du Tanz (Skrillex Re...	128	4:55	Frida Gold	Skrillex Remixes	Dubstep		
132	Stand By Me (English Version)	128	3:24	Prince Royce	Stand By Me (Englis...	Pop		
133	Scary Monsters And Nice Sprites -...	128	8:04	Skrillex	More Monsters and...	Dubstep		
134	Rock N' Roll (Will Take You To The...	128	4:44	Skrillex	Scary Monsters And...	Dubstep		
135	Scary Monsters And Nice Sprites -...	128	5:58	Skrillex	Scary Monsters And...	Dubstep		
136	Rock That Body (Black Eyed Pea	128	5:09	Skrillex	Skrillex Remixes	Dubstep		
137	Sick Bubblegum (Rob Zombie)	128	5:01	Skrillex	Unreleased	Dubstep		
138	The Devil's Den	128	4:53	Skrillex & Wolfgang...	Bangarang	Dance		
139	Gravity	129	5:56	ATB	Future Memories	Dance		
140	The 16th Hour	129	9:30	Deadmau5	For Lack of a Better...	Progressive...		
141	Overdraft	129	4:30	Deadmau5	Get Scraped	Progressive...		
142	T17	129	4:28	Deadmau5	Vexillology	Progressive...		
143	Somebody That I Used To Know	129	4:04	Gotye				
144	Party Rock Anthem ft. Lauren Ben...	129	6:16	LMFAO				
145	Hanuman	129	3:39	Rodriago y Gabriela	11:11	World		

# Stepping off the podium: BPM Analyzer



MixMeister Technology - | x  
www.mixmeister.com/download-bpmanalyzer.php

**MixMeister**

PRODUCTS | DOWNLOADS | BUY | SUPPORT | COMPANY | COMMUNITY

Overview | Express | Studio | Fusion | Fusion + Video

## BPM Analyzer

\*BPM Analyzer is now available for MAC.

MixMeister BPM Analyzer is a free program you can use to determine the exact BPM (beats per minute) of any song. BPM Analyzer allows you to:

- Calculate extremely accurate BPM counts for any song
- Drag and drop music files from Windows Explorer
- Display and sort files by Title, Artist, or BPM
- Update ID3 tags in your music files with exact BPM information
- Easily print BPM reports for your entire music collection
- Export BPM counts for use in other programs
- Free to use and distribute for non-commercial purposes

**How to get it:**

To download your copy of BPM Analyzer, please provide the following information. Again, we will use this information only to notify you about product offers, and to notify you when more Free Stuff is made available, if you request it. You can unsubscribe from our Free Stuff mailing list at any time.

Please note that we will never sell, rent or exchange your email address without your permission (see our [privacy policy](#)).

Items marked with an asterisk (\*) below are required.

First Name \*

Last Name \*

TITLE	ARTIST	BPM
The American Way	Crystal Method...	96.99
Wide Open	Crystal Method...	97.99
Broken Glass	Crystal Method...	100.00
Weapons Of Mass D...	Crystal Method...	104.99
Acezone	Crystal Method...	120.00
Bound Too Long	Crystal Method...	128.01
Starting Over	Crystal Method...	128.01
True Size	Crystal Method...	128.01
Born Too Slow	Crystal Method...	130.00
Realizer	Crystal Method...	130.00
I Know It's You	Crystal Method...	131.00
High And Low	Crystal Method...	131.01

Product Details

Learn how MixMeister products are different. >

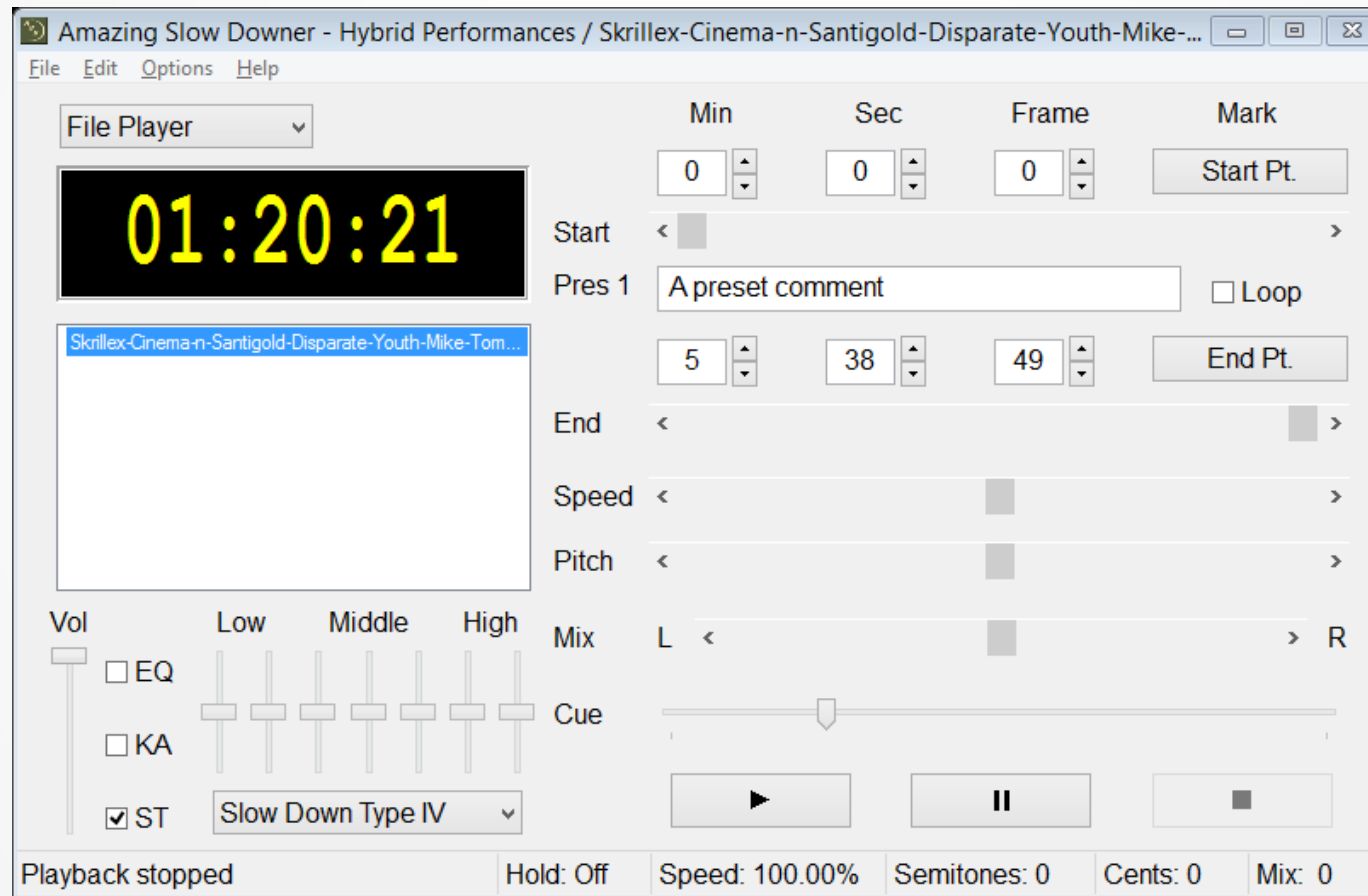
Get more info about Express. >

Get more info about Studio. >

Get more info about Fusion. >

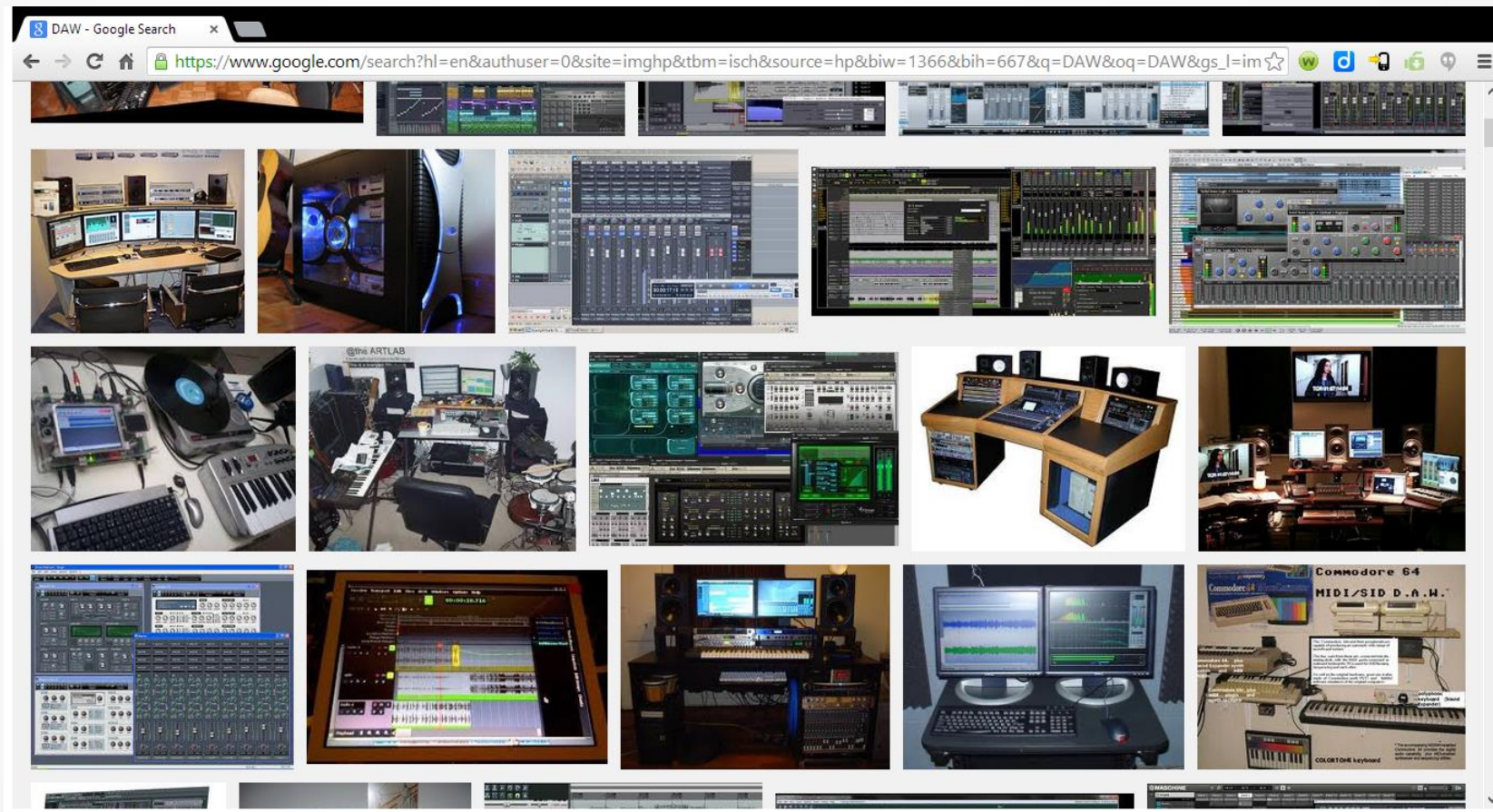
See a side-by-side comparison >

# Stepping off the podium: Amazing Slow Downer





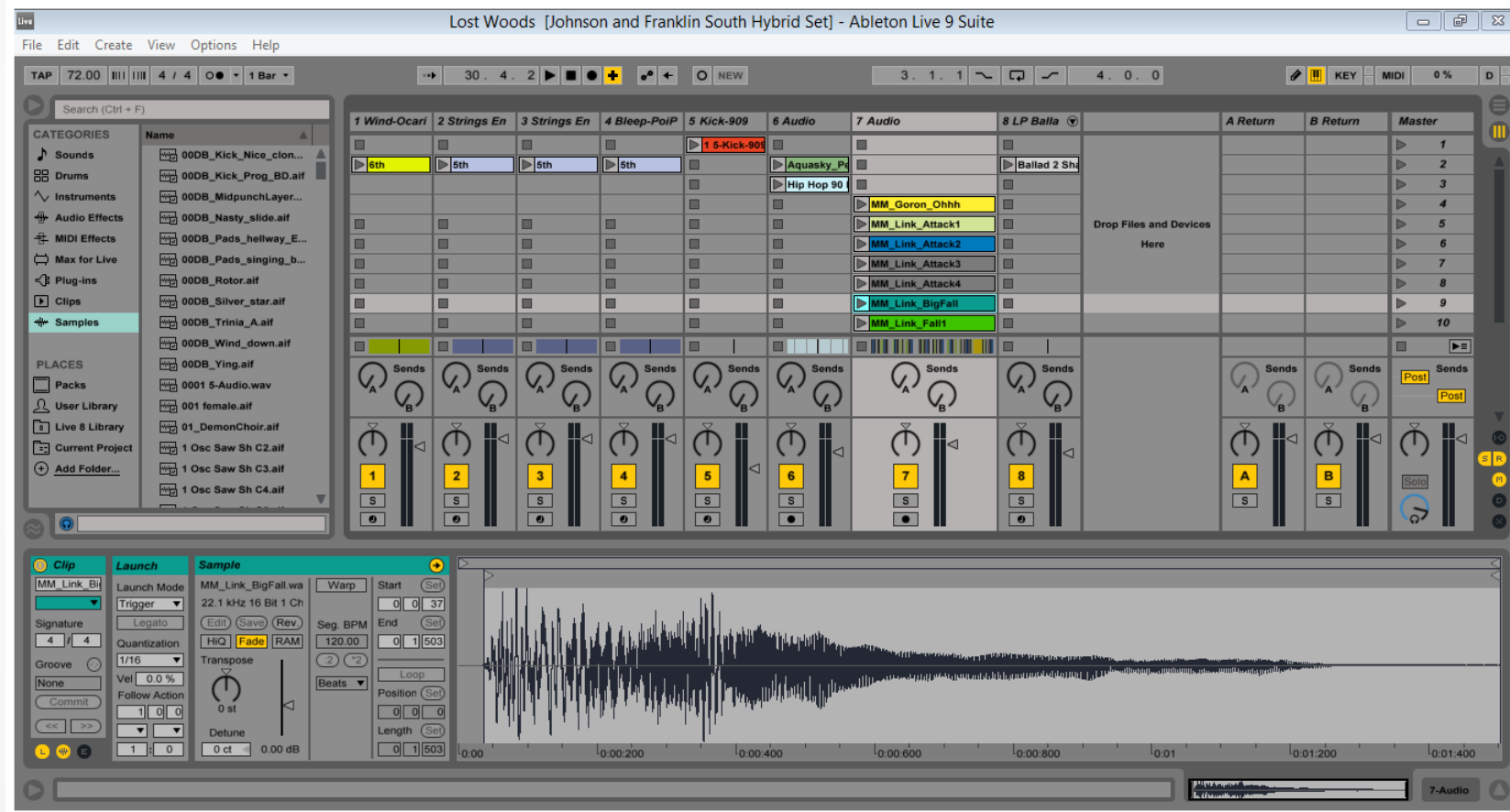
# Stepping off the podium: DAWs



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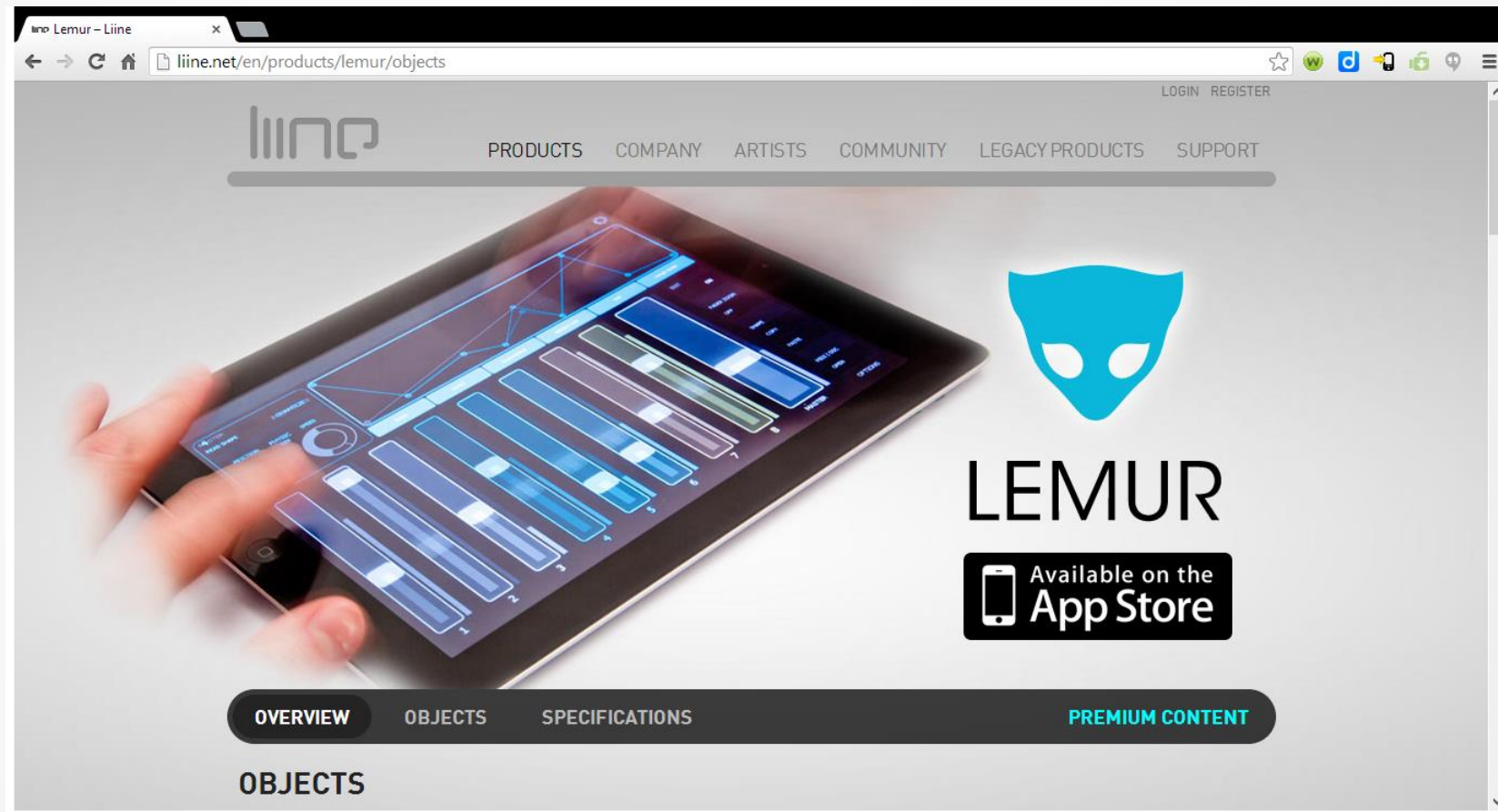


# Stepping off the podium: Ableton Live



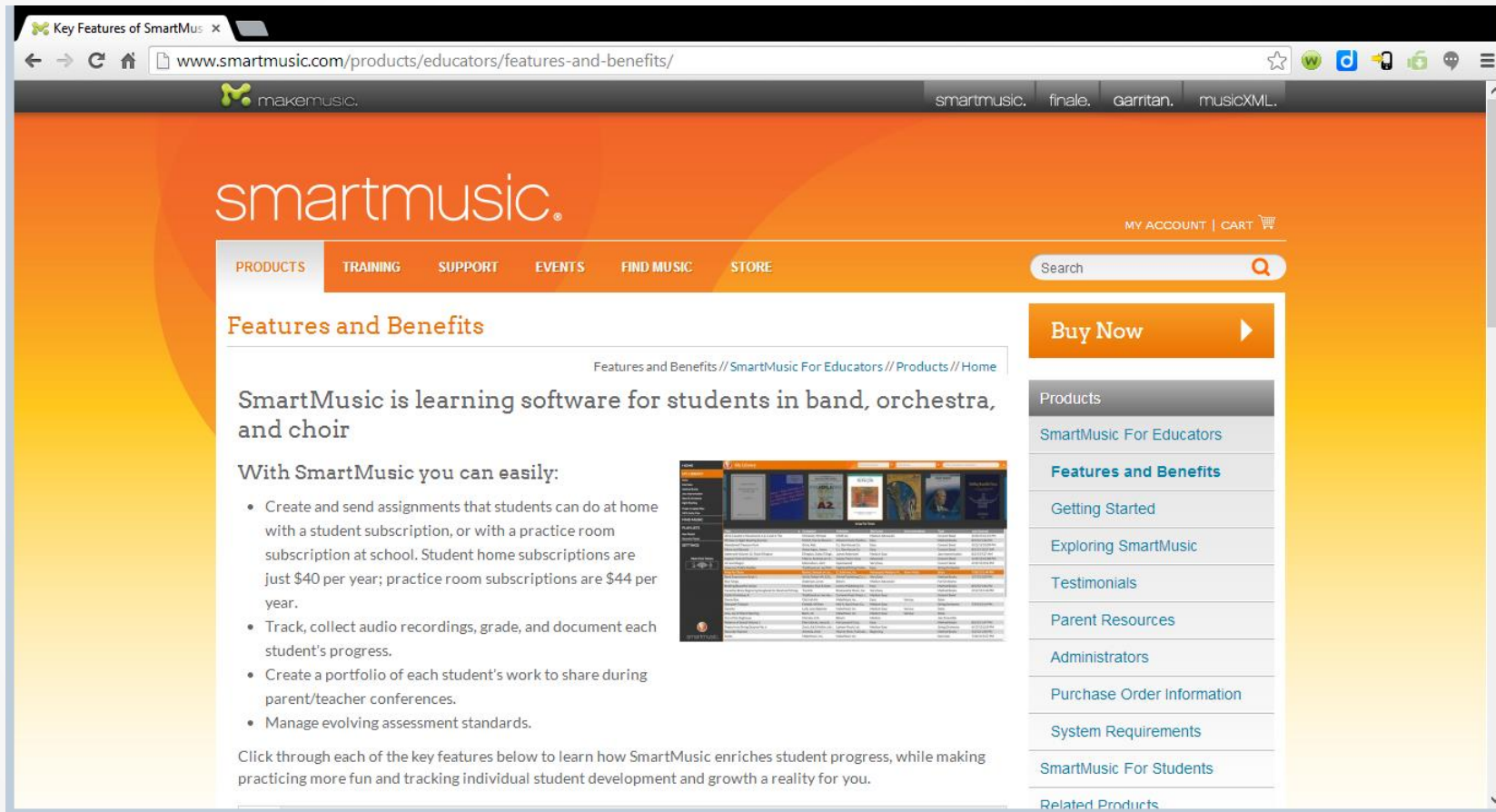
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# Stepping off the podium: MIDI Controllers



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# Assessment: SmartMusic



The screenshot shows the SmartMusic website for educators. The page title is "Features and Benefits" and the main heading is "SmartMusic is learning software for students in band, orchestra, and choir". The page lists several key features and benefits:

- Create and send assignments that students can do at home with a student subscription, or with a practice room subscription at school. Student home subscriptions are just \$40 per year; practice room subscriptions are \$44 per year.
- Track, collect audio recordings, grade, and document each student's progress.
- Create a portfolio of each student's work to share during parent/teacher conferences.
- Manage evolving assessment standards.

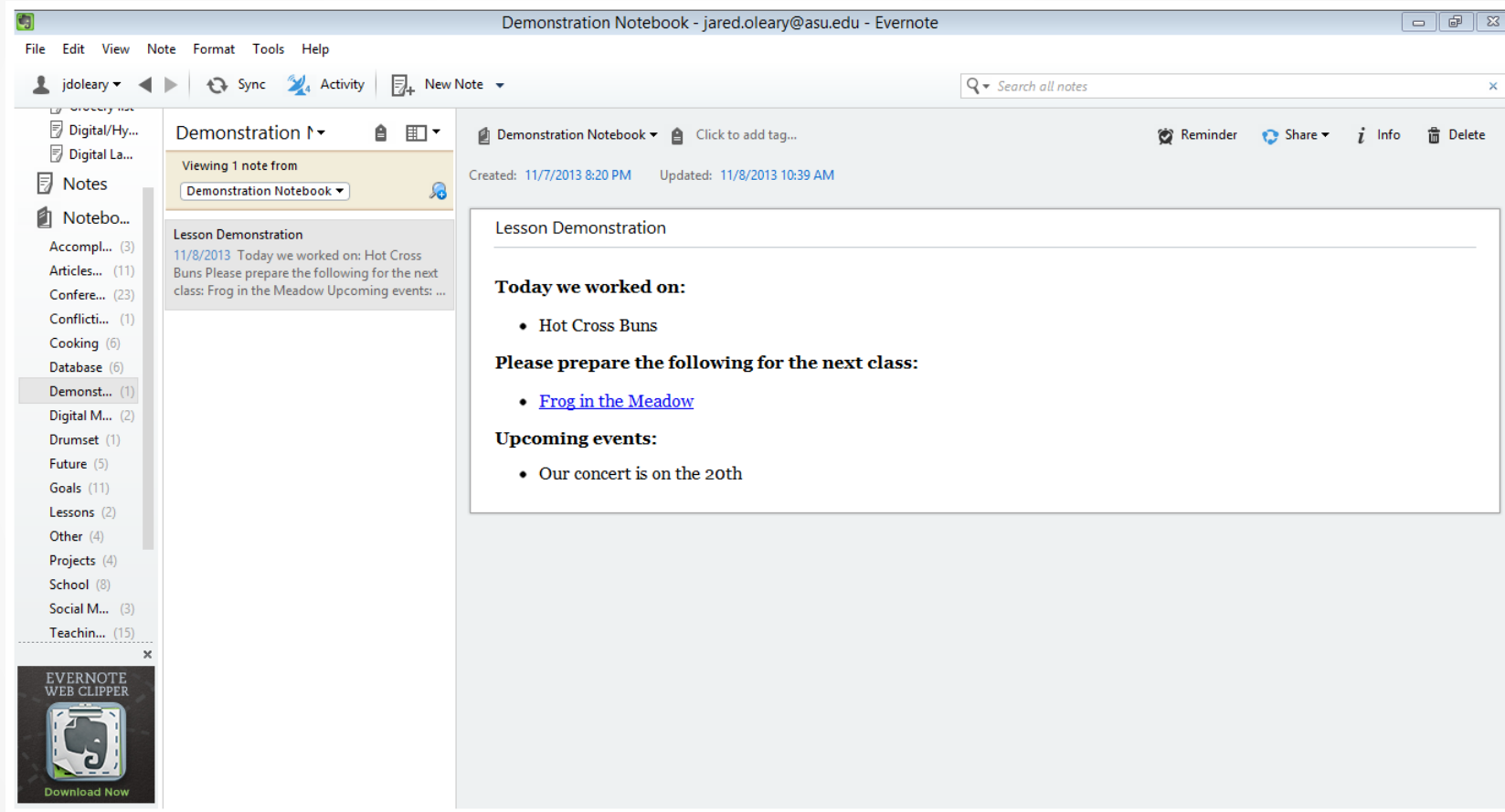
The page also includes a "Buy Now" button and a sidebar with navigation links such as "Products", "SmartMusic For Educators", "Features and Benefits", "Getting Started", "Exploring SmartMusic", "Testimonials", "Parent Resources", "Administrators", "Purchase Order Information", "System Requirements", "SmartMusic For Students", and "Related Products".

# Assessment: SoundCloud

The screenshot shows a web browser window displaying a SoundCloud track page. The browser's address bar shows the URL <https://soundcloud.com/jdoleary/hot-cross-buns>. The page header includes navigation links for 'Stream' and 'Explore', a search bar, and utility icons for 'Upload', play/pause, volume, and settings. The track title is 'Hot Cross Buns' by 'jdoleary', with a duration of '9 mins'. A waveform visualization is present with the text 'Click to play' overlaid. Below the waveform is a comment input field labeled 'Write a comment ...'. A row of interaction buttons includes 'Like', 'Add to playlist', 'Add to group', 'Share', 'Download', and edit/delete icons. A 'More stats' link is also visible. The track description features a profile picture of a man, a '+ band' tag, and the text: '5th grade band students playing their first song ever.' Below this, it states: '"Hot Cross Buns" by jdoleary is licensed under a Creative Commons Licence.' A 'Choose new image' button is located below the profile picture. On the right side, a 'Related' section lists other tracks by 'jdoleary': 'Worldwide Tuning Meditation' (20 plays, 1 like, 10 downloads) and 'The Soothing Sounds I Hear Fro...' (32 plays, 1 download).

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# Communication: Evernote or Google Drive



The screenshot displays the Evernote web interface for a notebook titled "Lesson Demonstration" owned by jared.oleary@asu.edu. The interface includes a menu bar (File, Edit, View, Note, Format, Tools, Help), a toolbar with options like Sync, Activity, and New Note, and a search bar. The left sidebar shows a list of notebooks, with "Demonst..." selected. The main content area shows a note titled "Lesson Demonstration" dated 11/8/2013. The note text includes:

**Lesson Demonstration**

---

**Today we worked on:**

- Hot Cross Buns

**Please prepare the following for the next class:**

- [Frog in the Meadow](#)

**Upcoming events:**

- Our concert is on the 20th

At the bottom left of the interface, there is a "Download Now" button for the Evernote Web Clipper.

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The demonstration above also included a link to Scorch



# Video Games in Music Education

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# What would a student learn doing this?

- ▶ Film scoring
  - ▶ Except it's live
- ▶ Considerations:
  - ▶ Thematic material
  - ▶ Interactions with the environment
  - ▶ Interactions with the player
  - ▶ Flexible



# Augmenting Musicianship

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# Augmenting Musicianship:

The image is a screenshot of a YouTube video player. The browser address bar shows the URL [www.youtube.com/watch?v=-CBd2mEUK2s](http://www.youtube.com/watch?v=-CBd2mEUK2s). The video title is "Bach's Bastion ReMix by Sebastian Freij". The video player shows a man playing a cello in a dimly lit room. The video progress is at 1:13 / 5:10. Below the video, the channel name "Sebastian Freij" is visible with 61 videos and 7,792 subscribers. The video has 274 likes and 1 comment. The video was uploaded on Dec 14, 2011. To the right of the video player, there is a list of recommended videos, including "New AC4 Black Flag Video" by AssassinsCreed, "YouTube Mix - Bach's Bastion ReMix by Sebastian Freij", "Best VGM 1042 - Bastion - Setting Sail, Coming Home (End Theme)" by SupraDarky, "Full Bastion OST" by F4m1LyGuy10, "Yo-Yo Ma - Bach, Cello Suites" by messer citraz, "How to Blur out Faces in Motion in Sony Movie Studio" by Harvey Poling, and "Road To Errogie - Flook" by World4Entertainment.

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# Augmenting Musicianship:

The screenshot shows a YouTube video player interface. The main video is titled "Skrillex Cinema & Santigold Disparate Youth - Mike Tompkins DUB..." and has a view count of 6,090,207. The channel name is "Mike Tompkins" with 65 videos and 1,067,900 subscribers. The video player shows a progress bar at 0:04 / 5:39. To the right of the video is a list of recommended videos, including "Make Women Approach You" (Ad), "YouTube Mix - Skrillex Cinema & Santigold Disparate Youth - Mike Tompkins", "Radioactive - Mike Tompkins - Jonas Brothers Tour 2013 - Imagine Dragons", "Coldplay - Paradise - A Capella Cover - Mike Tompkins", "We Are Young - fun. - Mike Tompkins - A Capella Cover", "Starships - Nicki Minaj - Mike Tompkins - A Capella Cover", "Rolling In The Deep - A Cappella Cover - Adele - Mike Tompkins - Beatbox", and "Christina Grimmie & Mike Tompkins".

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# Augmenting Musicianship:

The image is a screenshot of a YouTube video player. The browser address bar shows the URL [www.youtube.com/watch?v=8bJxleg5iQ](http://www.youtube.com/watch?v=8bJxleg5iQ). The search bar contains the text "onyx ashanti beatjazz". The video player shows a man, Onyx Ashanti, playing a black electronic instrument. The video title is "BEAT JAZZ by ONYX ASHANTI". Below the video, the channel name "Onyx Ashanti" is displayed with 114 videos and 55,902 subscribers. The video has 381 likes and 6 dislikes. The upload date is "May 8, 2011". To the right of the video player, there is a list of recommended videos, including "How Lazy Guys Get Ripped", "YouTube Mix - BEAT JAZZ by ONYX ASHANTI", "Jazz Hip Hop Beat Making", "Beatjazz - Open Source: Onyx Ashanti /Electronic Jazz Artist at TEDxLuanda", "Fall of the Velociraptors - Drumline Cadence", "Thoughts and Insights on Engineering a Sonic Fractal Matrix: Onyx Ashanti at TEDxTalks", "Adele-Rolling In The Deep(Jazz Metal Version)", and "Eric Lewis: Striking chords to rock the".

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How do you...?



# ...find out about the latest tech?

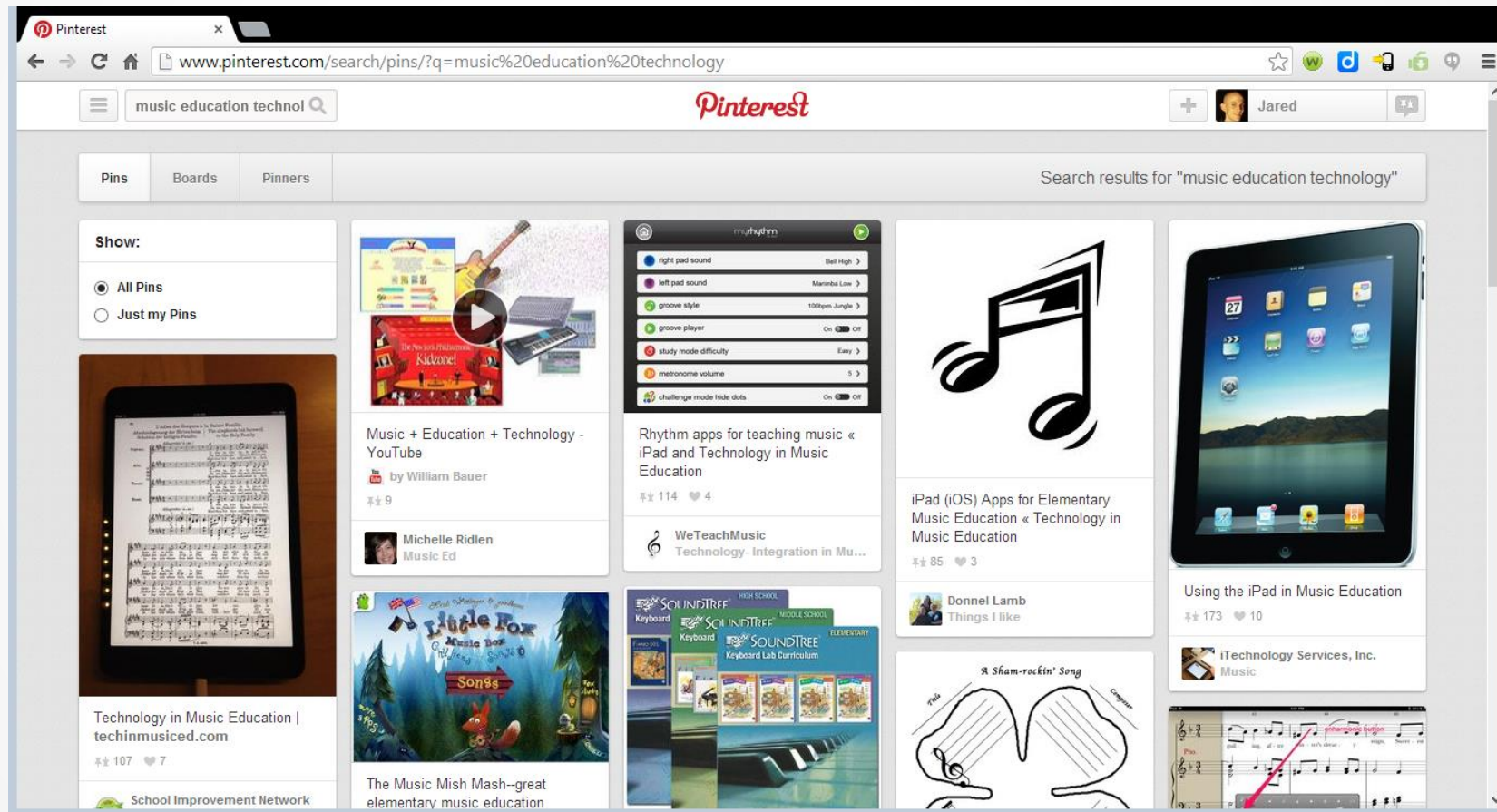
## Twitter lists

The screenshot shows a Twitter browser interface. The address bar displays the URL <https://twitter.com/OCPDMusic/lists/music-education>. The page title is '@OCPDMusic/Music-edu'. The main content area is divided into two columns. The left column, titled 'Music-education', shows it is a public list by Jared O'Leary with 101 members and 1 subscriber. It includes buttons for 'Edit' and 'Delete', and links for 'List members' and 'List subscribers'. Below this, it lists 'Recently added members' including Jesse Rathgeber, NYU Music Education, Peter Miksza, and MacPhail Lab Report, each with a 'Following' button. The right column, titled 'Tweets', displays a list of tweets from members of the list, including tweets from Assoc. Music Parents, Joe Guarr, and ASU Music Education.

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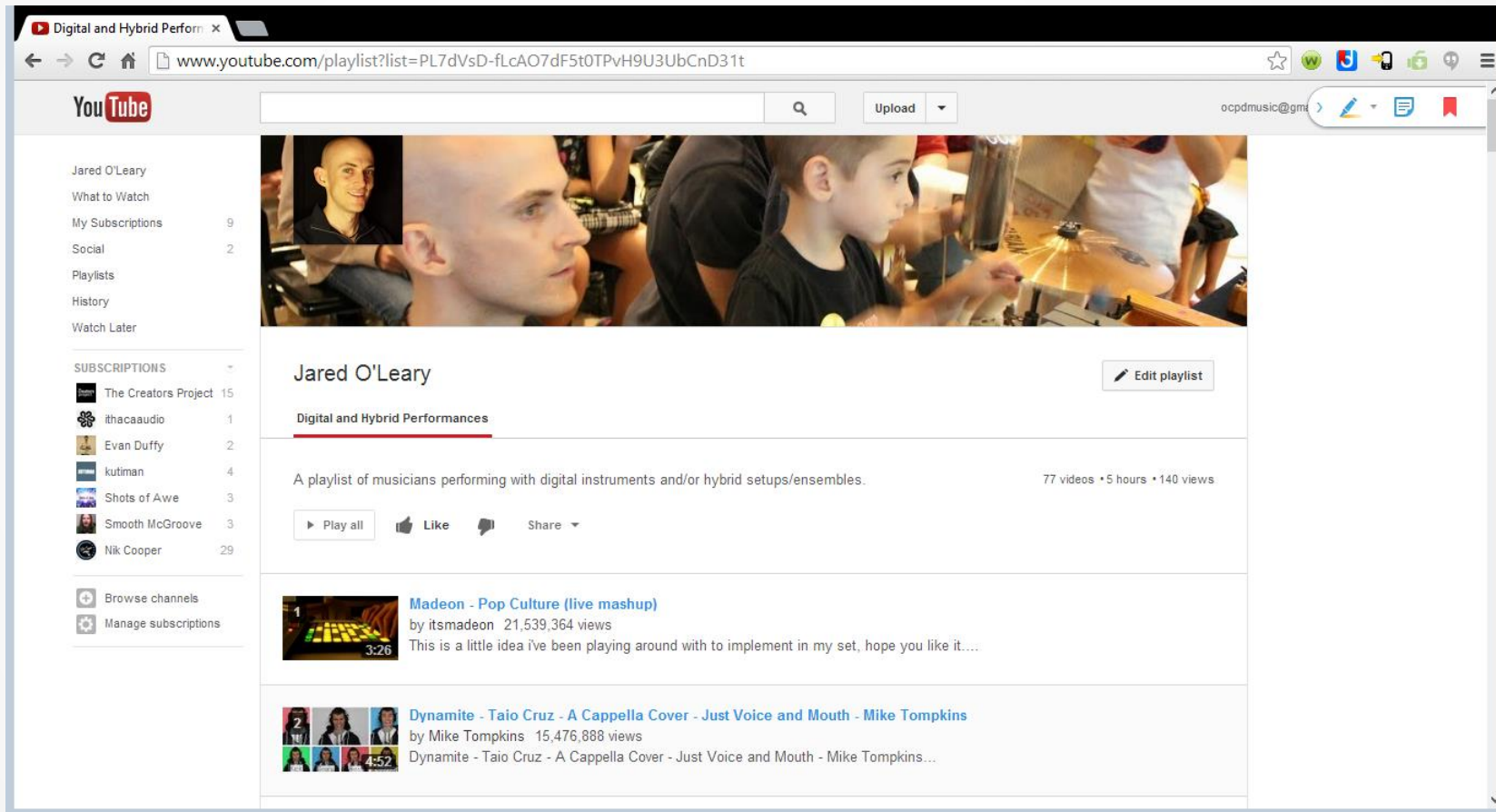
# ...find more about the latest tech? Pinterest



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# ...find out how to use it?

## YouTube



The screenshot shows a YouTube browser window with the address bar displaying `www.youtube.com/playlist?list=PL7dVsD-fLcAO7dF5t0TPvH9U3UbCnD31t`. The page features the YouTube logo, a search bar, and an 'Upload' button. On the left sidebar, there are navigation options like 'Jared O'Leary', 'What to Watch', 'My Subscriptions' (9), 'Social' (2), 'Playlists', 'History', and 'Watch Later'. Below these are 'SUBSCRIPTIONS' with a list of channels including 'The Creators Project' (15), 'thacaudio' (1), 'Evan Duffy' (2), 'kutiman' (4), 'Shots of Awe' (3), 'Smooth McGroove' (3), and 'Nik Cooper' (29). At the bottom of the sidebar are 'Browse channels' and 'Manage subscriptions'.

The main content area shows a video thumbnail of a man and a child playing drums. Below the thumbnail is the channel name 'Jared O'Leary' and an 'Edit playlist' button. The playlist title is 'Digital and Hybrid Performances', with a description: 'A playlist of musicians performing with digital instruments and/or hybrid setups/ensembles.' It shows '77 videos • 5 hours • 140 views'. There are 'Play all', 'Like', and 'Share' buttons. The first video in the list is 'Madeon - Pop Culture (live mashup)' by itsmadeon, with 21,539,364 views and a 3:26 duration. The second video is 'Dynamite - Taio Cruz - A Cappella Cover - Just Voice and Mouth - Mike Tompkins' by Mike Tompkins, with 15,476,888 views and a 4:52 duration.

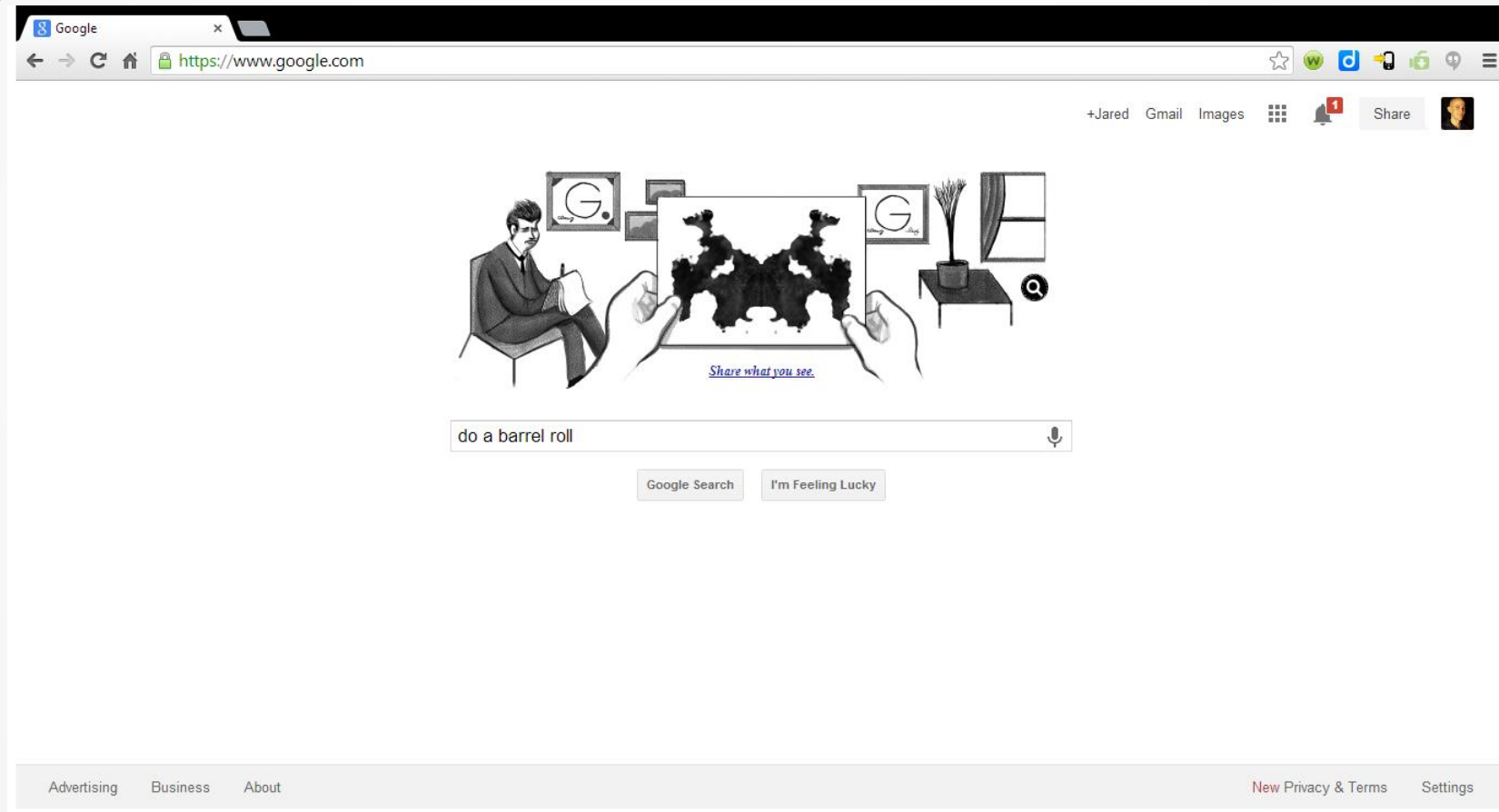
# ...find out how to use it? Help Section

The screenshot shows the Ableton Live 9 Suite interface. The main window is titled "Untitled - Ableton Live 9 Suite". The interface is divided into several sections:

- Browser:** Located on the left, it shows a list of categories (Sounds, Drums, Instruments, Audio Effects, MIDI Effects, Max for Live, Plug-ins, Clips, Samples) and places (Packs, User Library, Live 8 Library, Current Project). The "Samples" category is selected, and a list of sample files is visible, including "00DB\_Silver\_star.aif".
- Session View:** The central area shows a grid of tracks. The tracks are labeled "1 MIDI", "2 MIDI", "3 Audio", "4 Audio", "A Reverb", "B Delay", and "Master". The "3 Audio" track is selected, and its parameters (Sends, A, B) are visible. The "Master" track has a "Post" button.
- Clip Slot:** Located at the bottom left, it contains text explaining how to use clip slots: "Each Session View slot can hold one clip to be played live. Create clips by dragging files from the Browser or from other windows into open slots. Dragging can also be used to move clips between slots, or to copy clips in from the Arrangement."
- Recording Audio:** A help window is open on the right side, titled "Recording Audio". It contains text: "In this lesson, we'll see how to use Live for recording live instruments or voice. We'll learn about routing, monitoring and multitrack recording, and we may even figure out how to play incredibly fast guitar solos." Below this, it says: "Live's documents are known as Live Sets. This lesson is accompanied by a Live Set which you'll be interacting with as you follow the lesson. Whenever you're ready, please click [here](#) to load the Live Set." At the bottom of the help window, it says: "Before we begin, allow us to point out Live's Info View: The Info View resides in the lower-left corner of the Live application window. It's a very handy resource that will tell you about almost anything that you point your mouse over. Like many other views in Live, it can be shown or hidden as needed just by clicking the triangular **unfold button** near its lower-left corner."

# ...find out how to use it?

# Google



# Collaborative resource sharing

The screenshot shows a web browser window displaying a Diigo group page. The address bar shows the URL <https://groups.diigo.com/group/tech-in-mused>. The Diigo logo is in the top left, and navigation links for 'What's New', 'Go Premium', 'Jared O'Leary', and 'My Library' are in the top right. Below the navigation is a search bar with the text 'Search in this group ...'. The main content area features a group header for 'Technology in Music Education' with a description: 'This free group allows you to find and/or share ideas and resources among fellow music educators in an effort to crowd-source resources and thoughts.' Below the header are two posts. The first post is titled 'Digital and Hybrid Performances - YouTube' and includes a link to a YouTube playlist, tags like 'PLN', 'hybrid', 'performances', 'YouTube', and a description: 'This YouTube playlist contains digital instruments and/or hybrid setups/ensembles.' The second post is titled 'Twitter Lists' and includes a link to a Twitter list, tags like 'socialmedia', 'social', 'twitter', 'PLN', 'tools', 'list', and 'twitter list'. On the right side of the page, there is a sidebar with an 'Invite people' button and a 'Group Info' section containing details such as 'Last active: 4 minutes ago', 'Members: 1', 'Items: 7', 'Visits: 6', 'Owner: Jared O'Leary', 'Group type: Public, anyone can join', and 'Group category: Education - K12'.

# Questions?

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