



8-bit composition Unit: Composing for Old School Video Games

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What's the plan?

- ▶ Video games?
- ▶ 8-bit?
- ▶ Potential projects
- ▶ Let's play!
- ▶ Some considerations
- ▶ Questions?

How to reach the resources

- ▶ www.JaredOLEary.com
 - ▶ Music Education Presentations
 - ▶ 8-bit Composition Unit?





Video Games?

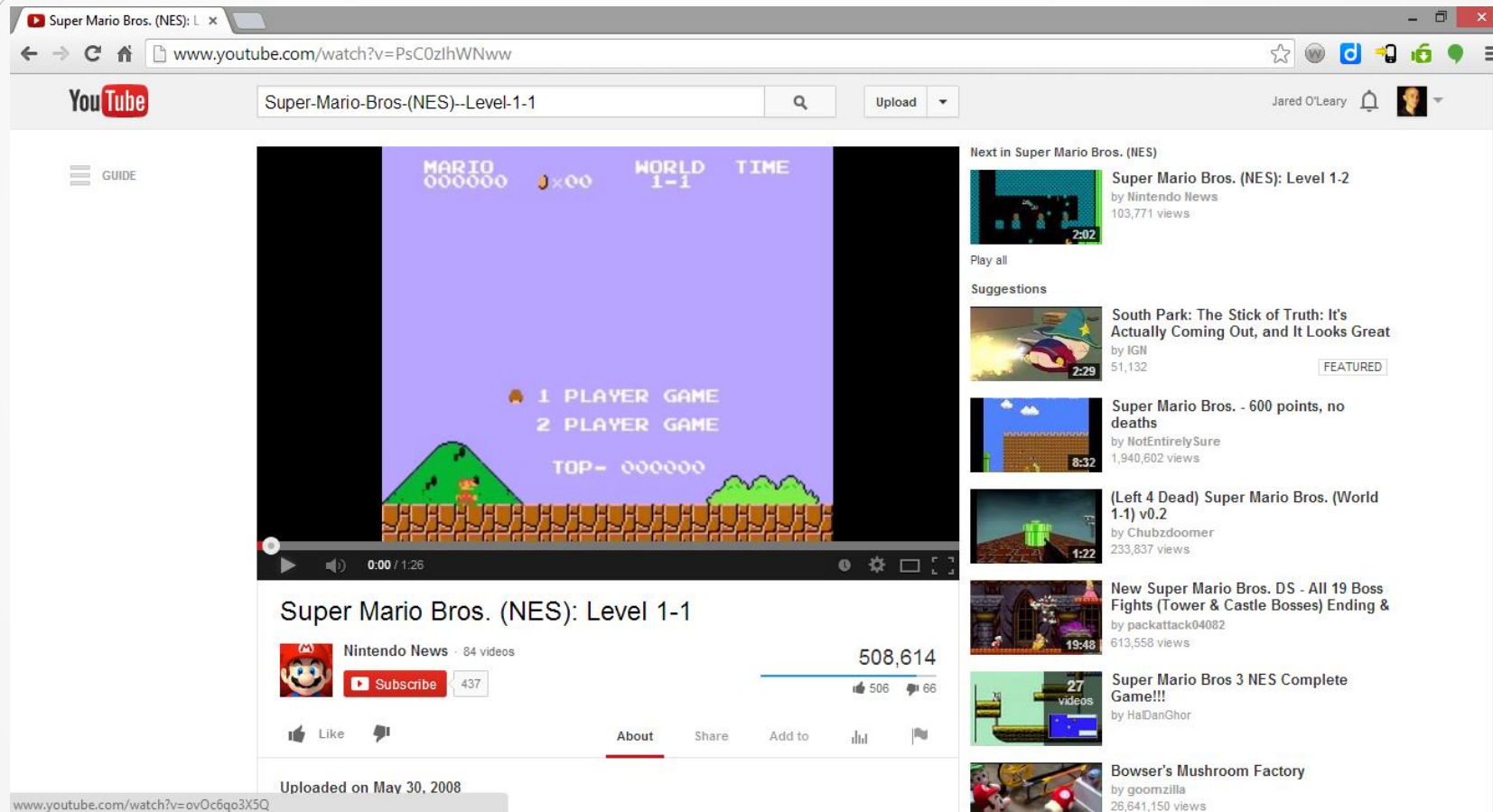
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Video Games?

- Who plays video games?
- Why use video games in music education?

Jumping in: Super Mario Bros (NES)



Super Mario Bros. (NES): Level 1-1

Next in Super Mario Bros. (NES)

- Super Mario Bros. (NES): Level 1-2 by Nintendo News 103,771 views 2:02
- South Park: The Stick of Truth: It's Actually Coming Out, and It Looks Great by IGN 51,132 views 2:29
- Super Mario Bros. - 600 points, no deaths by NotEntirelySure 1,940,602 views 8:32
- (Left 4 Dead) Super Mario Bros. (World 1-1) v0.2 by Chubzdoomer 233,837 views 1:22
- New Super Mario Bros. DS - All 19 Boss Fights (Tower & Castle Bosses) Ending & by packattack04082 613,558 views 19:48
- Super Mario Bros 3 NES Complete Game!!! by HalDanGhor 27 videos
- Bowser's Mushroom Factory by goomzilla 26,641,150 views

Super Mario Bros. (NES): Level 1-1

Nintendo News 84 videos 508,614 views

Like 506 66

About Share Add to

Uploaded on May 30, 2008



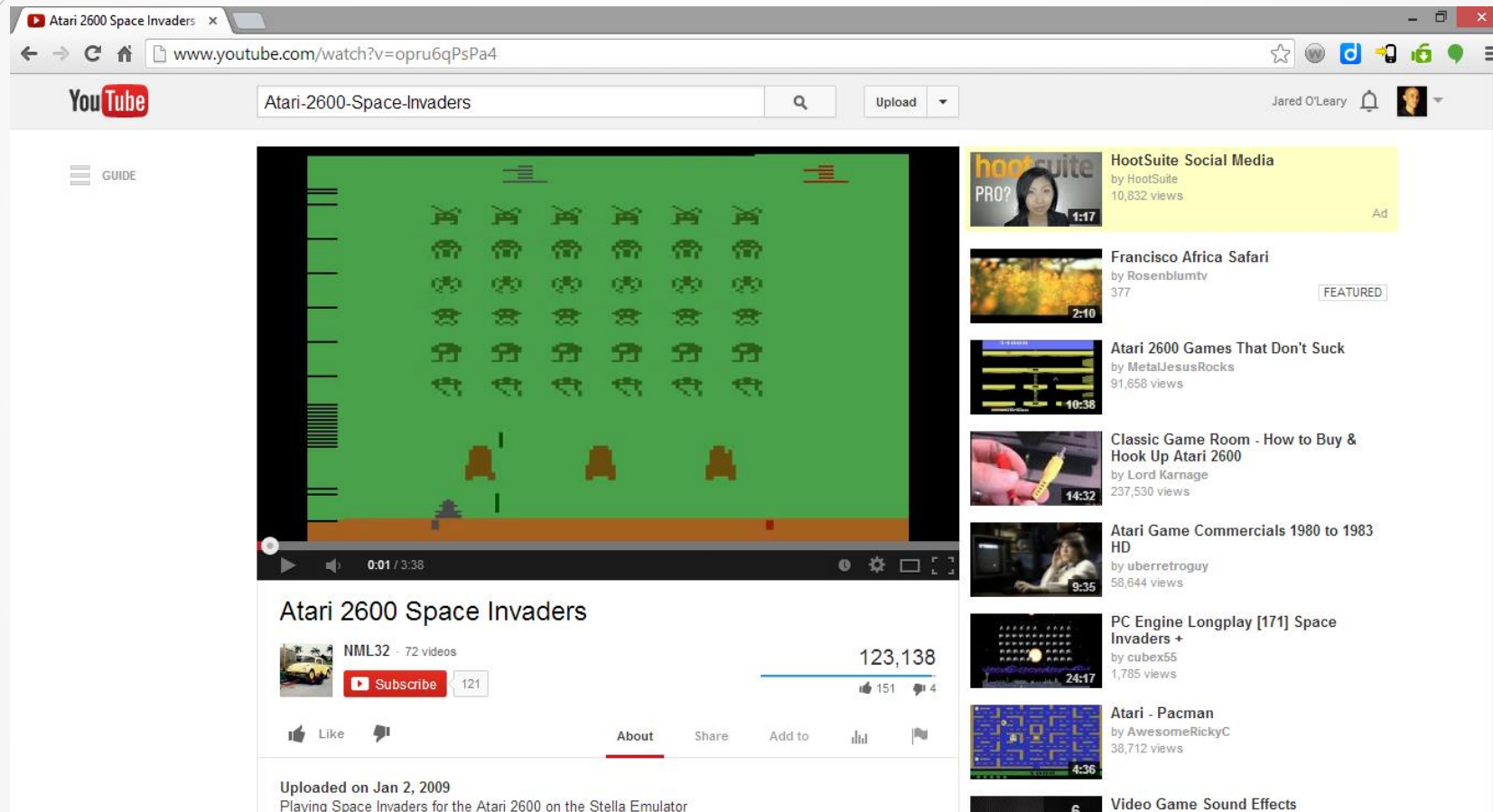
What are 8-bit video games?

An intro to 8-bit: Pong (Atari)

The screenshot shows a YouTube video player interface. The main video is titled "Arcade Gameplay - Original Pong - Atari - Boulot-Retro-Dodo.fr" and is 2:35 long. The video content shows a classic Pong game on a black background with a vertical dashed line in the center and two white vertical bars representing paddles. Below the video player, the channel name "Sébastien Cousin" is visible with 134 videos and 16,907 subscribers. The video was published on April 30, 2012, and the description reads: "Découvrez le jeu vidéo Pong sur borne d'arcade de la société Atari -". To the right of the video player, there is a list of recommended videos, including "GTA 5: How To Find The Sea Monster (aka Whale Skeleton)", "La revanche des geeks - Documentaire Arte", "Tomb Raider - La renaissance de Lara Croft - Reportage Geek", "Arcade Gameplay - Space Invaders (1978) - Boulot-Retro-Dodo.fr", "Arcade Gameplay - Pac-Man - Namco - Boulot-Retro-Dodo.fr", "My Top 10 Video Game Easter Eggs and Secrets of 2013", and "ATARI 2600 TOP 35 MEJORES JUEGOS".

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An intro to 8-bit: Space Invaders (Atari 2600)



The screenshot shows a YouTube video player for the video 'Atari 2600 Space Invaders'. The video is currently at 0:01 / 3:38. The video content shows a classic Space Invaders game on a green background with a brown ground line. The player's name is NML32, with 72 videos and 123,138 views. The video was uploaded on Jan 2, 2009, and is described as 'Playing Space Invaders for the Atari 2600 on the Stella Emulator'. To the right of the video player is a list of recommended videos, including 'HootSuite Social Media', 'Francisco Africa Safari', 'Atari 2600 Games That Don't Suck', 'Classic Game Room - How to Buy & Hook Up Atari 2600', 'Atari Game Commercials 1980 to 1983 HD', 'PC Engine Longplay [171] Space Invaders +', and 'Atari - Pacman'.

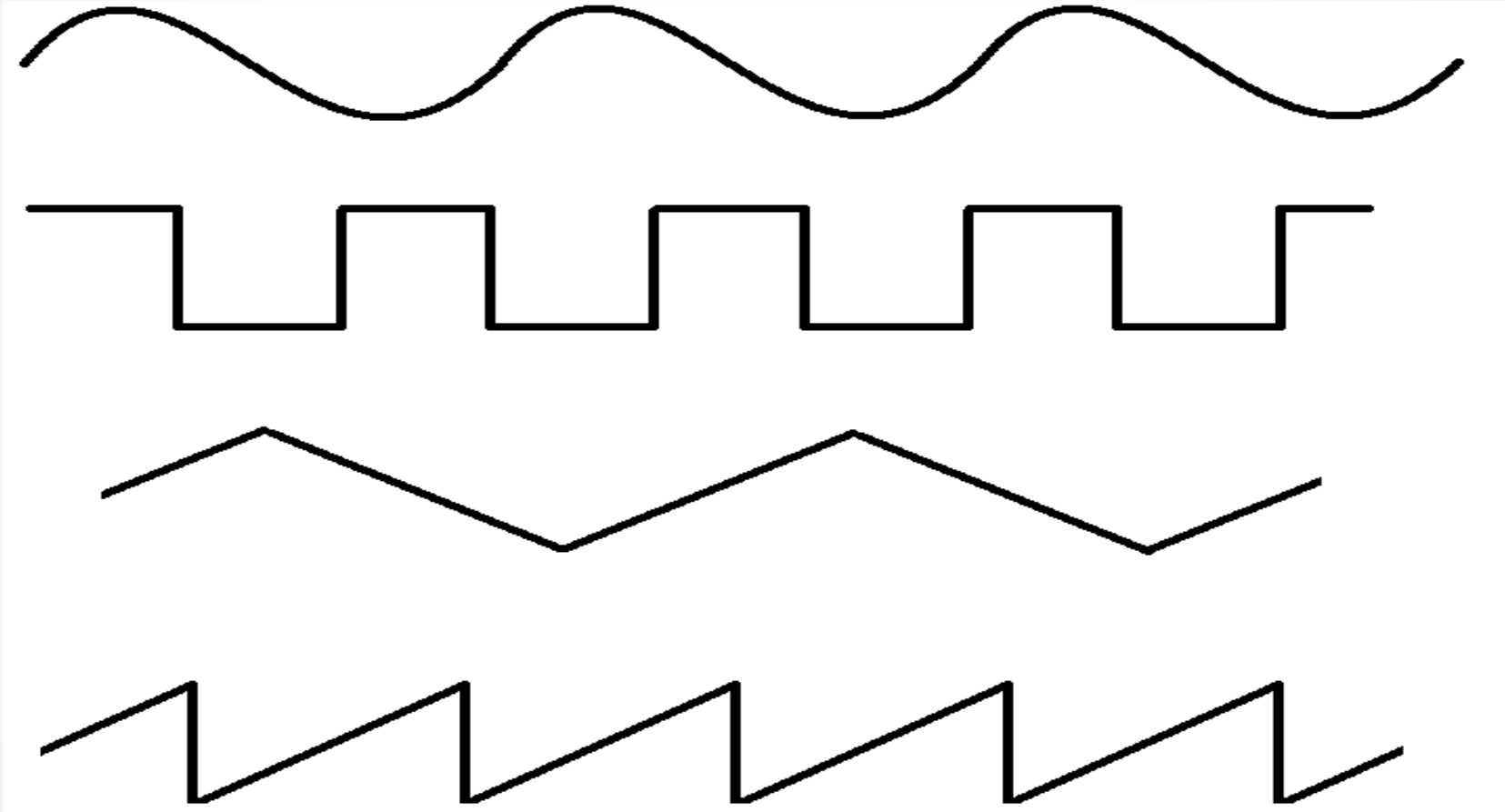
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An intro to 8-bit: Super Mario Bros (NES)

The screenshot shows a YouTube video player for the video "Super Mario Bros. (NES): Level 1-1". The video player is displaying the title screen of the game, which features a purple background with the text "MARIO 000000", "WORLD 1-1", "TIME", "1 PLAYER GAME", "2 PLAYER GAME", and "TOP- 000000". The video is by the channel "Nintendo News" and has 508,614 views. The player interface includes a search bar, navigation icons, and a list of suggested videos on the right. The suggested videos include "Super Mario Bros. (NES): Level 1-2", "South Park: The Stick of Truth: It's Actually Coming Out, and It Looks Great", "Super Mario Bros. - 600 points, no deaths", "(Left 4 Dead) Super Mario Bros. (World 1-1) v0.2", "New Super Mario Bros. DS - All 19 Boss Fights (Tower & Castle Bosses) Ending &", "Super Mario Bros 3 NES Complete Game!!!", and "Bowser's Mushroom Factory".

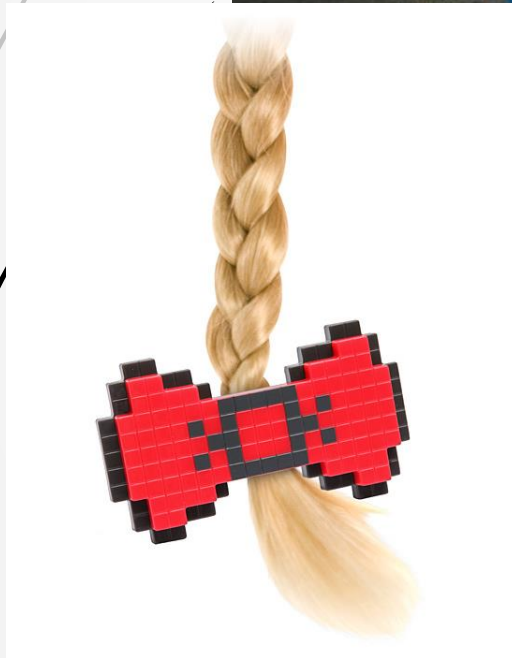
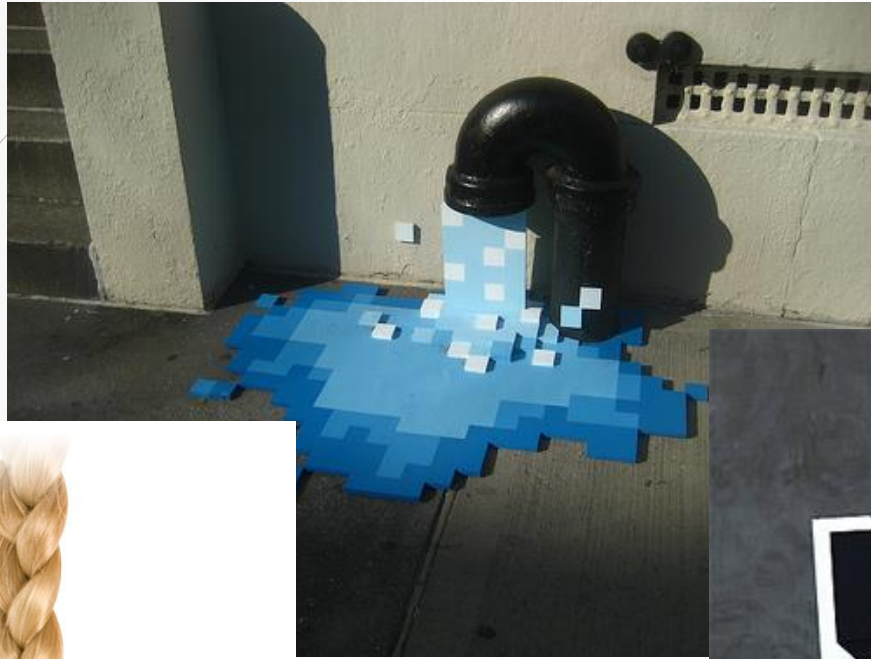
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Wave forms in 8-bit



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Is 8-bit relevant?



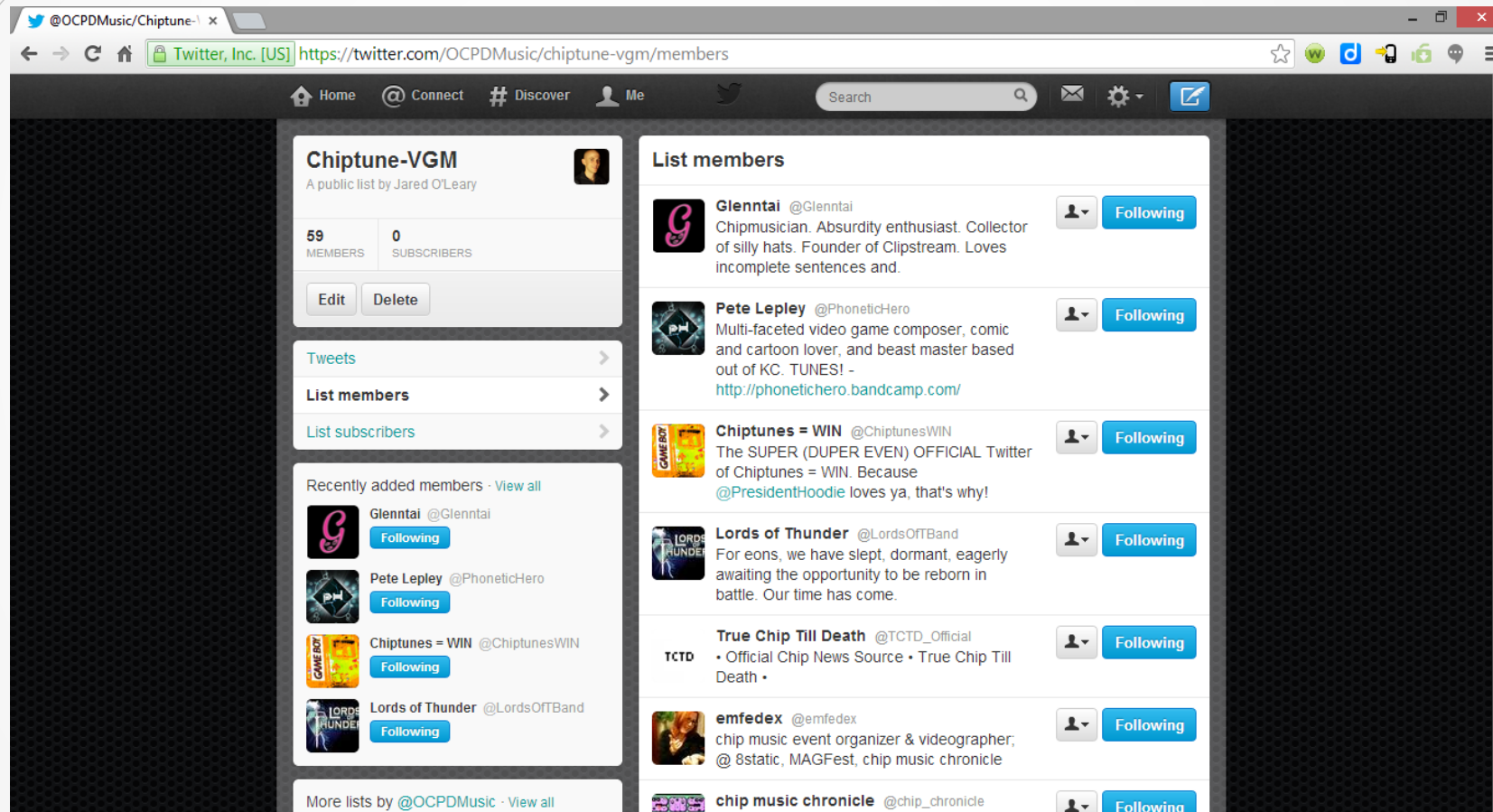
<http://www.GeekFeed.info>



Potential projects

What could a project look like?

Composing original works



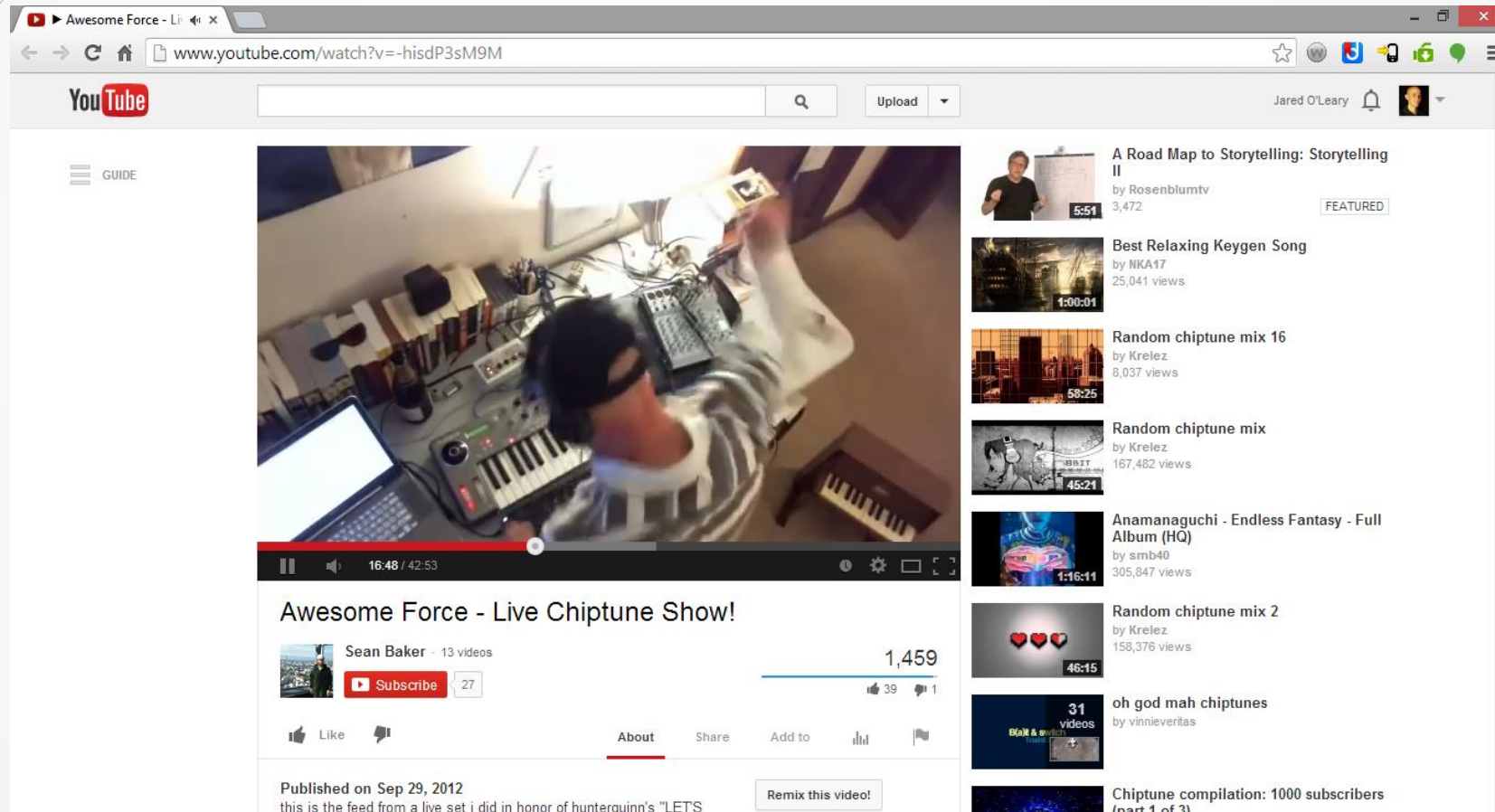
The screenshot shows a Twitter browser window with the URL <https://twitter.com/OCPDMusic/chiptune-vgm/members>. The page displays a public list titled "Chiptune-VGM" created by Jared O'Leary, which has 59 members and 0 subscribers. The list members are:

- Glenntai** (@Glenntai): Chipmusician. Absurdity enthusiast. Collector of silly hats. Founder of Clipstream. Loves incomplete sentences and.
- Pete Lepley** (@PhoneticHero): Multi-faceted video game composer, comic and cartoon lover, and beast master based out of KC. TUNES! - <http://phonetichero.bandcamp.com/>
- Chiptunes = WIN** (@ChiptunesWIN): The SUPER (DUPER EVEN) OFFICIAL Twitter of Chiptunes = WIN. Because @PresidentHoodie loves ya, that's why!
- Lords of Thunder** (@LordsOfTBand): For eons, we have slept, dormant, eagerly awaiting the opportunity to be reborn in battle. Our time has come.
- True Chip Till Death** (@TCTD_Official): Official Chip News Source • True Chip Till Death •
- emfedex** (@emfedex): chip music event organizer & videographer; @8static, MAGFest, chip music chronicle
- chip music chronicle** (@chip_chronicle)

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What could a project look like?

Performing original works



The screenshot shows a YouTube video player with the following details:

- Video Title:** Awesome Force - Live Chiptune Show!
- Channel:** Sean Baker - 13 videos
- Views:** 1,459
- Like/Dislike:** 39 likes, 1 dislike
- Published:** Sep 29, 2012
- Description:** this is the feed from a live set i did in honor of hunterquinn's "LETS
- Thumbnail:** A person wearing a black visor and a striped shirt is performing at a desk with a laptop and a keyboard.

On the right side of the page, there is a list of recommended videos:

- A Road Map to Storytelling: Storytelling II** by Rosenblumtv, 3,472 views, **FEATURED**
- Best Relaxing Keygen Song** by NKA17, 25,041 views
- Random chiptune mix 16** by Krelez, 8,037 views
- Random chiptune mix** by Krelez, 167,482 views
- Anamanaguchi - Endless Fantasy - Full Album (HQ)** by smb40, 305,847 views
- Random chiptune mix 2** by Krelez, 158,376 views
- oh god mah chiptunes** by vinnieveritas, 31 videos
- Chiptune compilation: 1000 subscribers (part 1 of 3)**

What could a project look like?

Film scoring for 8-bit video games



The screenshot shows a YouTube video player with the following details:

- Video Title:** Tugboat - 8-bit Hip Hop Medley w/ Best of Nintendo NES Gameplay
- Channel:** oldmansnots (24 videos)
- Views:** 23,979
- Subscribers:** 123
- Upload Date:** Oct 6, 2010
- Description:** This had to be Done. Tried my best to match each game with the

The video player shows a still image of a Nintendo NES console, a controller, and a red gun. The video progress is at 0:01 / 5:27.

Recommended videos on the right:

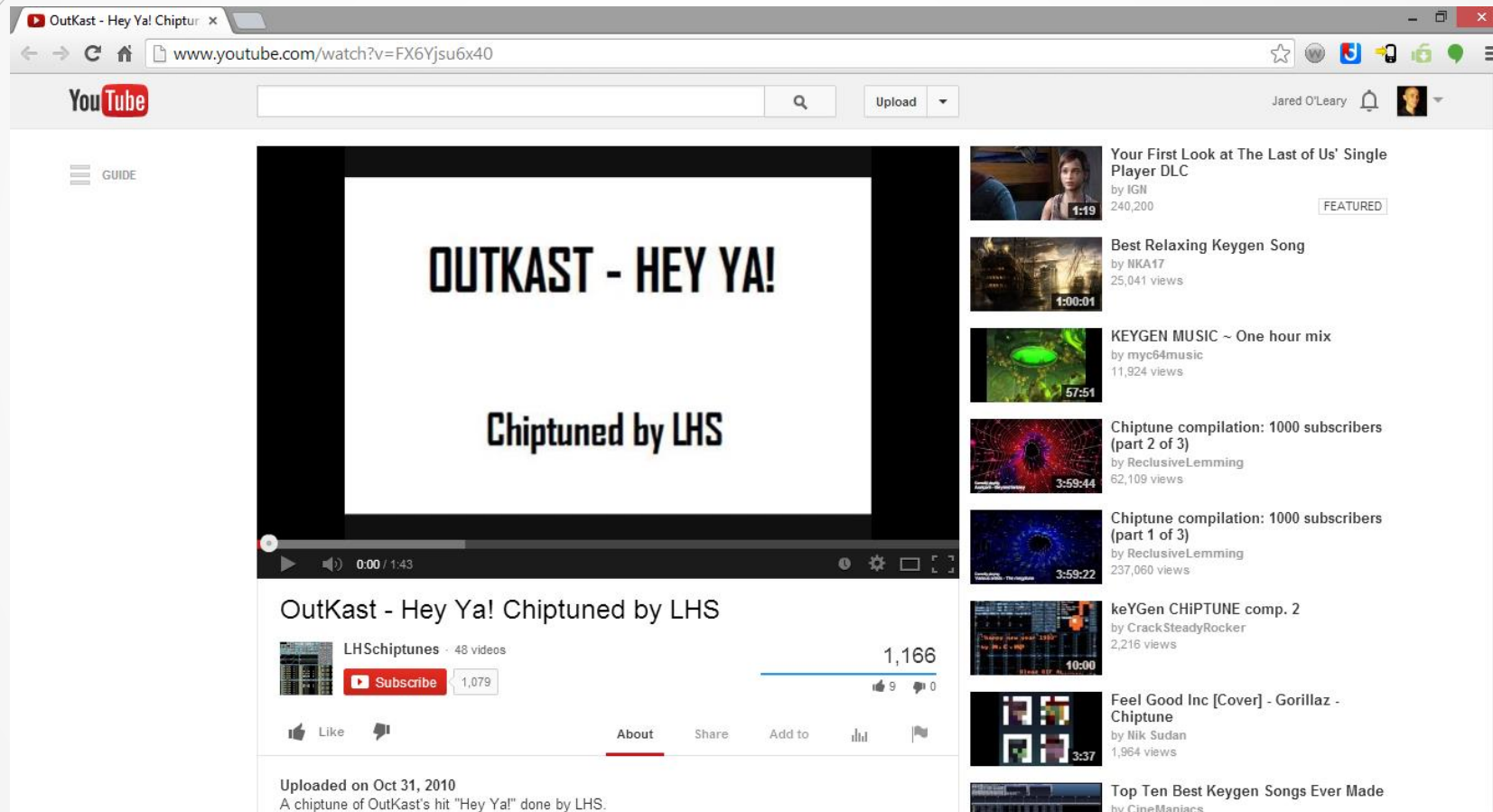
- 50 videos: YouTube Mix - Tugboat - 8-bit Hip Hop Medley w/ Best of Nintendo NES
- Super Metroid - Soundtrack (SPC) by Jiseng So (207,219 views)
- Random chiptune mix 14 by Krelez (13,506 views)
- NiN10Doh - ToThe64thPower by tomatoshadow (1,569,896 views)
- Two Best Sisters Play - PKMN Snap by 2Snacks (411,859 views)
- Early Nintendo NES system clone from the 1980's! Meet the MicroGenius by ASSEMBlergames.com (135,824 views)
- Tugboat - Man of the Year (Full Album) Chiptune by Zer0Funk (200 views)
- Ludacris - What's Your Fantasy ft. Shawwna

What could a project look like?

Film scoring for modern video games

The screenshot shows a YouTube video player for the video 'Battlefield 3 version 8-Bit' by GamesArtFR. The video is currently at 0:08 of a 3:15 duration. The video player shows a menu screen for Battlefield 3 with options: CAMPAIGN, OPTIONS, CREDITS, and QUIT. The video has 11,276 views and 11 subscribers. The video was published on Mar 22, 2012, and no description is available. To the right of the video player, there is a list of recommended videos, including 'Random acts of ownage', 'Top 10 8-Bit Themes', 'Battlefield 4 - Megalodon, Dinosaur, Hainan Resort Ship & WTF Easter Egg', 'Battlefield 3: RPG to Air Warfare #2', 'BF4 Levolution Guide: How To Trigger Destruction Events!', 'Battlefield 3', and 'TOP 50 FUNNIEST BATTLEFIELD 3 MOMENTS!'. The user profile 'Jared O'Leary' is visible in the top right corner of the browser window.

What could a project look like? 8-bit remixes/covers/arrangements

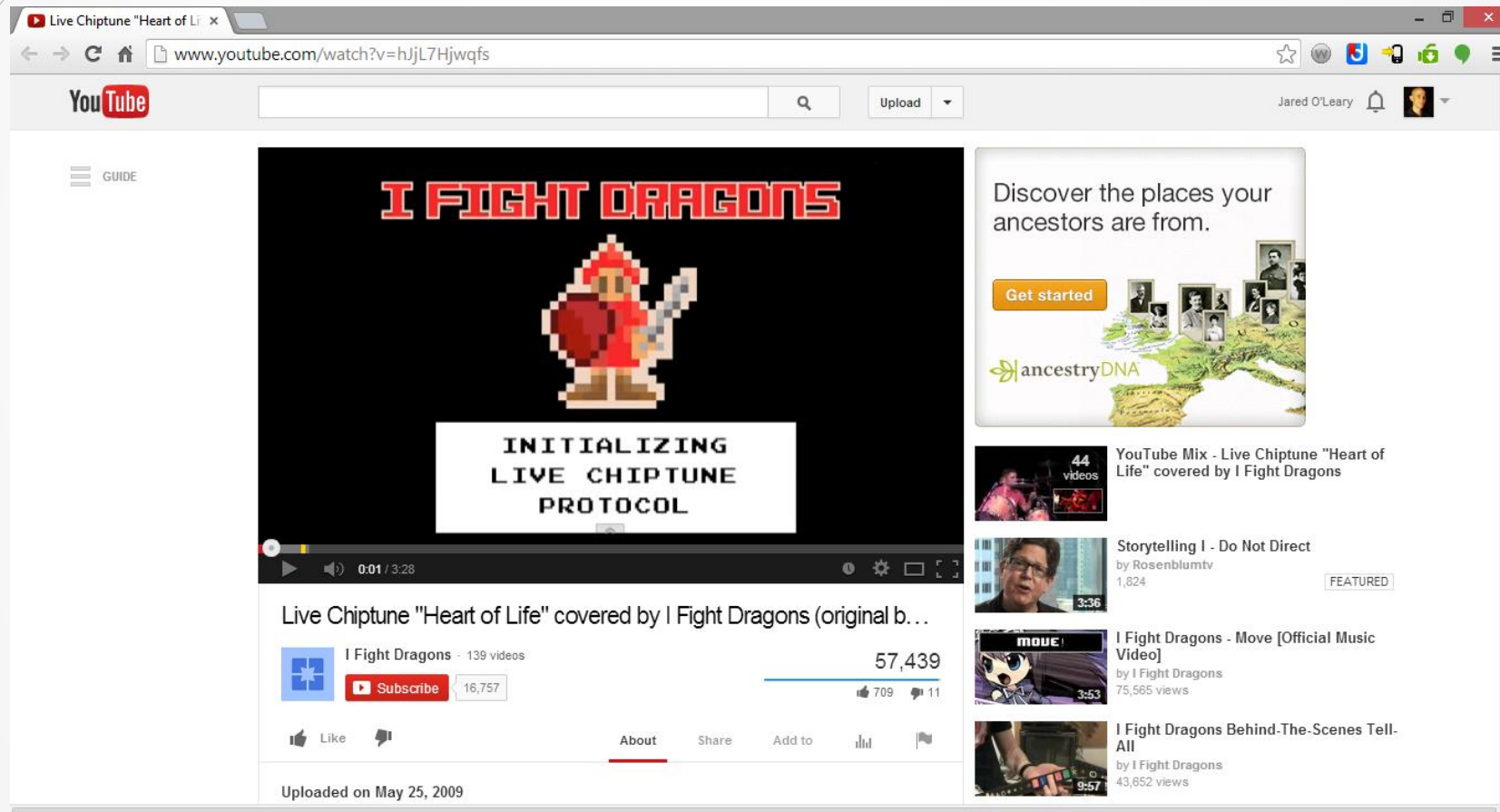


The screenshot shows a YouTube video player for the video "OutKast - Hey Ya! Chiptuned by LHS". The video player is currently at 0:00 / 1:43. The video title is "OutKast - Hey Ya! Chiptuned by LHS". The channel is "LHSchiptunes" with 48 videos and 1,079 subscribers. The video has 1,166 likes and 0 dislikes. The video description is "Uploaded on Oct 31, 2010. A chiptune of OutKast's hit 'Hey Ya!' done by LHS." The right sidebar shows several recommended videos, including "Your First Look at The Last of Us' Single Player DLC" by IGN (240,200 views), "Best Relaxing Keygen Song" by NKA17 (25,041 views), "KEYGEN MUSIC ~ One hour mix" by myc64music (11,924 views), "Chiptune compilation: 1000 subscribers (part 2 of 3)" by ReclusiveLemming (62,109 views), "Chiptune compilation: 1000 subscribers (part 1 of 3)" by ReclusiveLemming (237,060 views), "keYGen CHIPTUNE comp. 2" by CrackSteadyRocker (2,216 views), "Feel Good Inc [Cover] - Gorillaz - Chiptune" by Nik Sudan (1,964 views), and "Top Ten Best Keygen Songs Ever Made" by CineManiacs.

What could a project look like? 8-bit remixes/covers/arrangements

The image shows a screenshot of a YouTube video player. The browser address bar shows the URL www.youtube.com/watch?v=JjWXCbbSlIk. The video title is "Somewhere Only We Know 8-bit" by user "pokeyking123". The video has 472 views and 16 subscribers. The video player shows a progress bar at 0:00 / 3:57. To the right of the video player, there are several recommended videos and an advertisement. The advertisement is for Statesman Journal, featuring a cyclist and the text "Stay in touch with the news anywhere you go." and "Get 2 months for the price of 1 on a Digital Only subscription." The recommended videos include "Rappers Hate Him" by Six Pack Shortcuts (518,903 views), "Keane - The Best Of Keane (Full Album)" by MusicBestCL (149,278 views), "Back To The Future 8-Bit" by pokeyking123 (303 views), and "Jazz Lives at the Mid-Atlantic Jazz Festival" by Jazz Video Guy (17:14).

What could a project look like? 8-bit remixes/covers/arrangements

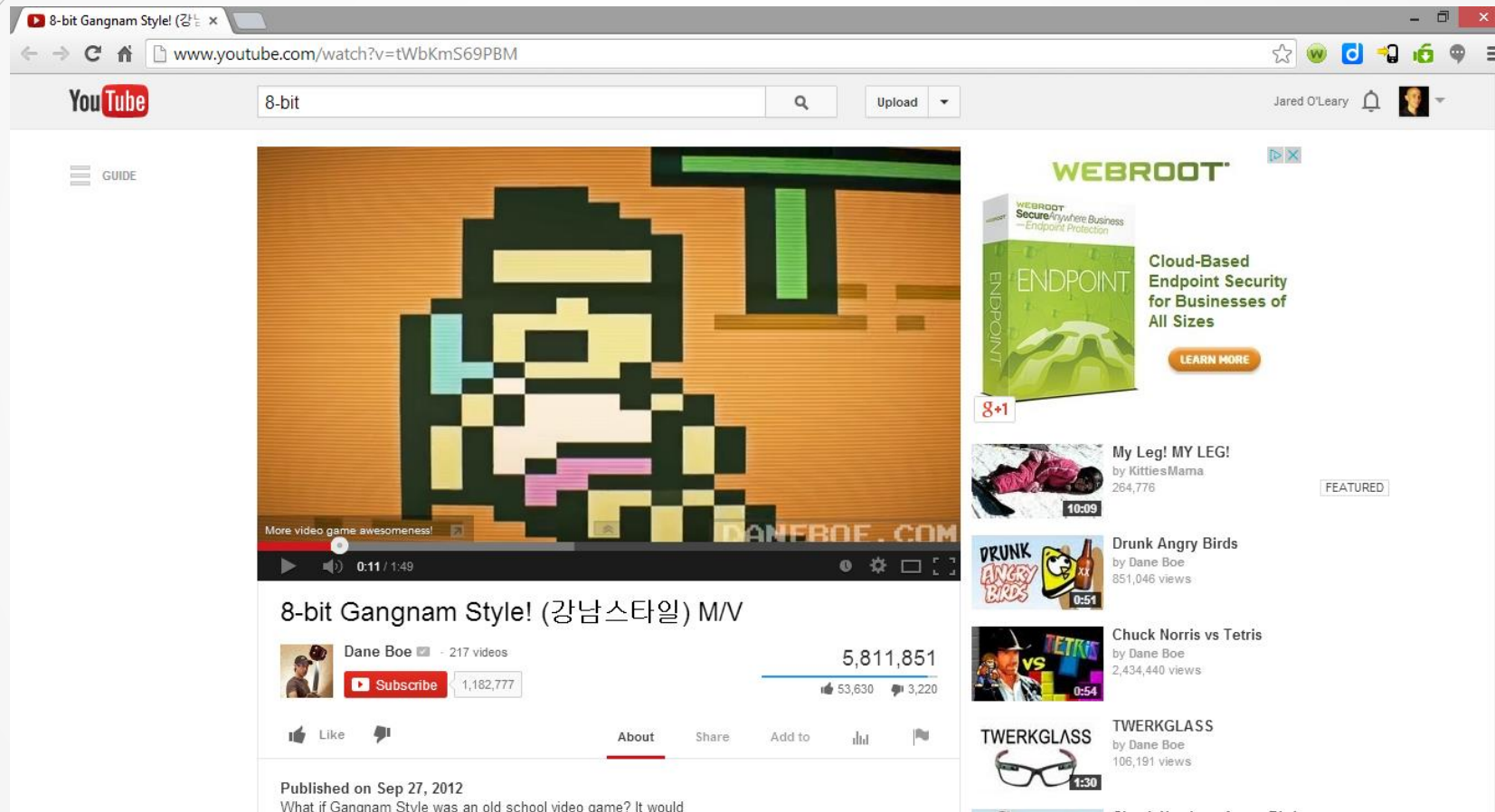


The screenshot shows a YouTube video player with the following details:

- Video Title:** Live Chiptune "Heart of Life" covered by I Fight Dragons (original b...)
- Channel:** I Fight Dragons · 139 videos
- Views:** 57,439
- Subscribers:** 16,757
- Engagement:** 709 likes, 11 comments
- Upload Date:** May 25, 2009
- Video Content:** The video frame displays the text "I FIGHT DRAGONS" in red, a pixelated character holding a sword, and "INITIALIZING LIVE CHIPTUNE PROTOCOL" in white on a black background.
- Right-Side Recommendations:**
 - YouTube Mix - Live Chiptune "Heart of Life" covered by I Fight Dragons (44 videos)
 - Storytelling I - Do Not Direct by Rosenblumtv (1,824 views, FEATURED)
 - I Fight Dragons - Move [Official Music Video] by I Fight Dragons (75,565 views)
 - I Fight Dragons Behind-The-Scenes Tell-All by I Fight Dragons (43,652 views)

What could a project look like?

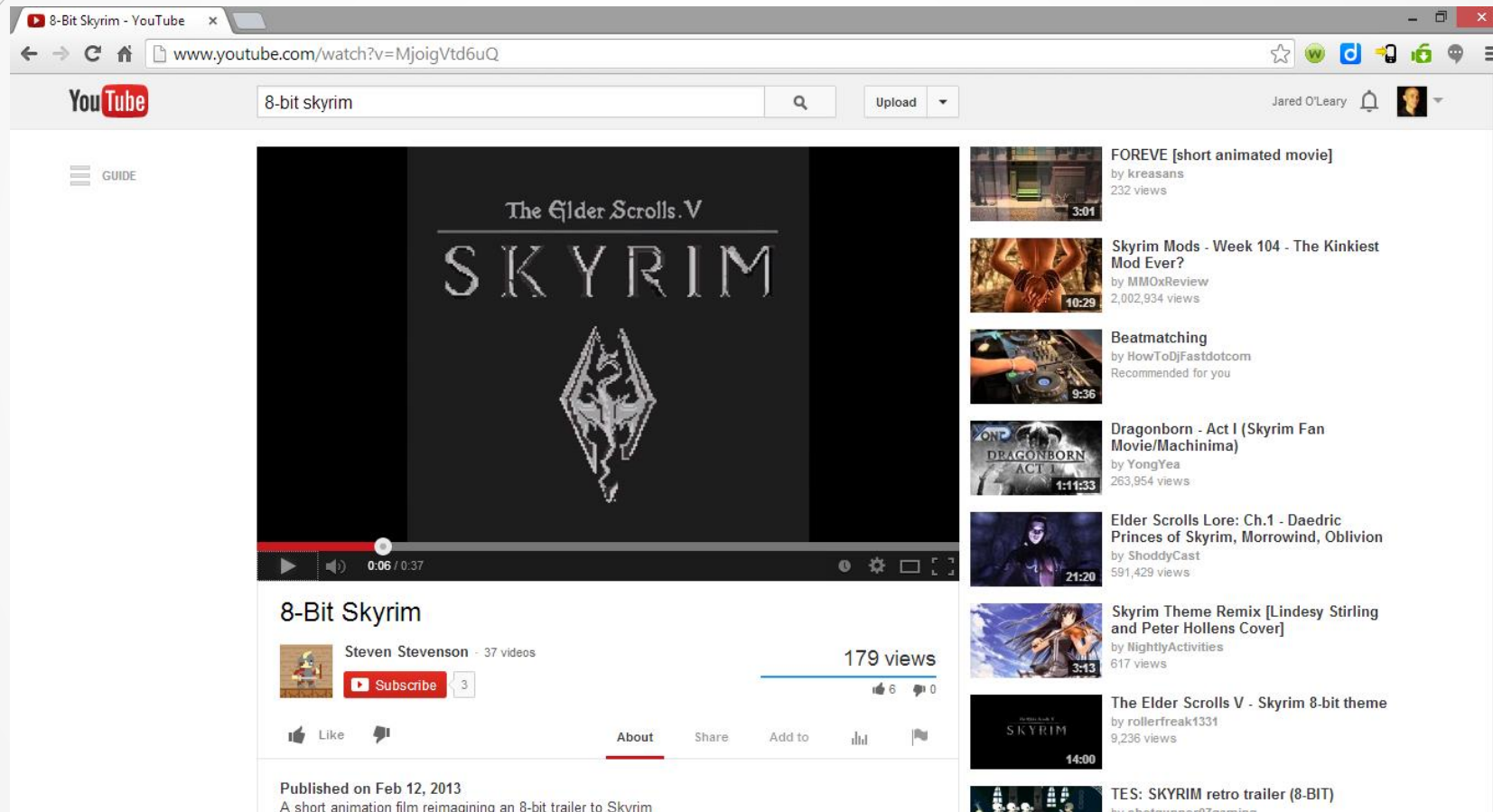
Interdisciplinary projects



The screenshot shows a YouTube video player for the video "8-bit Gangnam Style! (강남스타일) M/V" by Dane Boe. The video is in a pixelated, 8-bit style. The player interface includes a search bar with "8-bit" entered, a "GUIDE" menu, and a "WEBROOT" advertisement for "Cloud-Based Endpoint Security". Below the video player, the video title "8-bit Gangnam Style! (강남스타일) M/V" is displayed, along with the channel name "Dane Boe" and a subscriber count of 1,182,777. The video has 5,811,851 views, 53,630 likes, and 3,220 dislikes. The video description reads: "Published on Sep 27, 2012. What if Gangnam Style was an old school video game? It would". To the right of the video player, there are several recommended videos, including "My Leg! MY LEG!" by KittiesMama, "Drunk Angry Birds" by Dane Boe, "Chuck Norris vs Tetris" by Dane Boe, and "TWERKGLASS" by Dane Boe.

What could a project look like?

Interdisciplinary projects

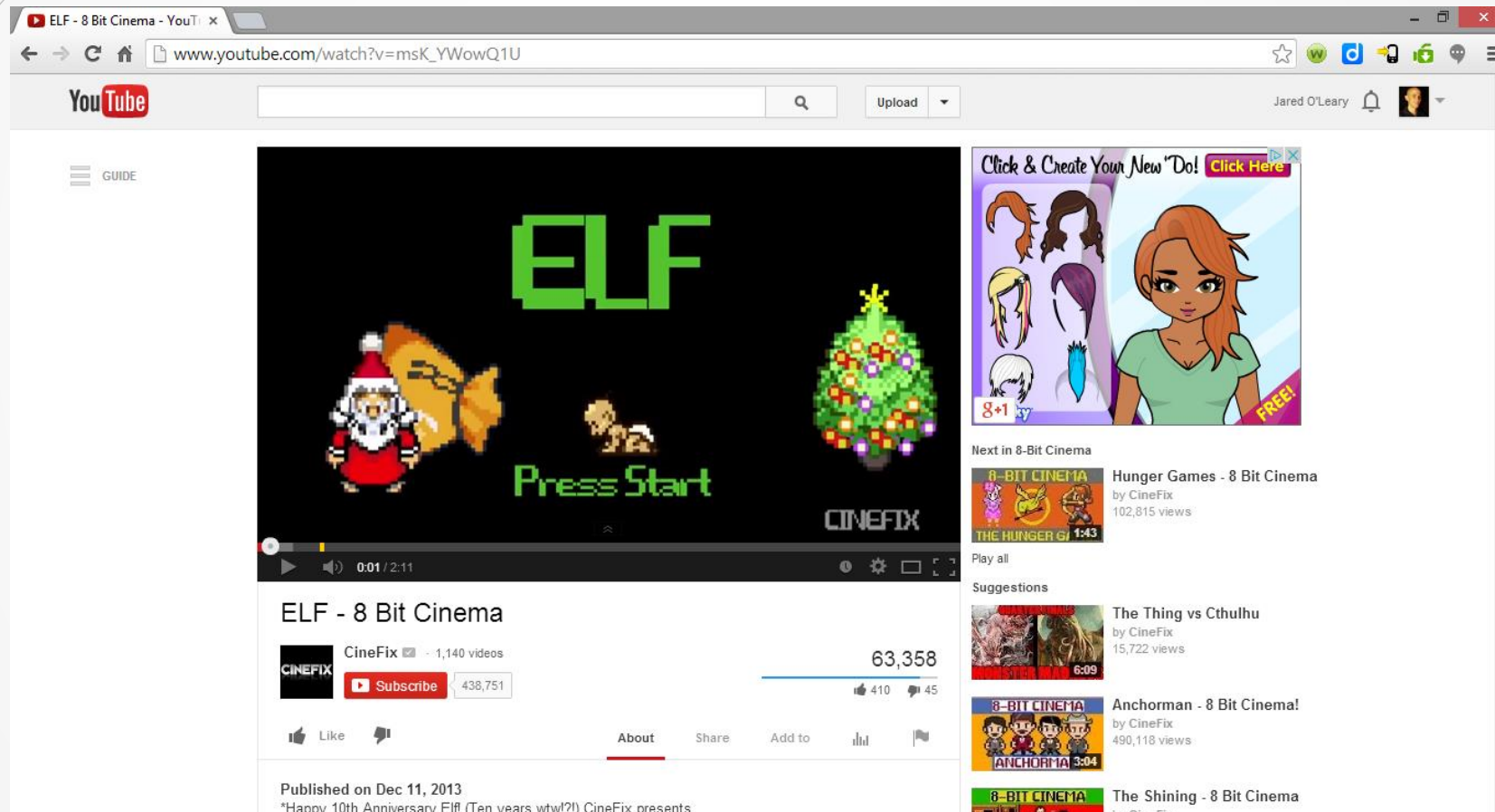


The screenshot shows a YouTube video player for the video "8-bit Skyrim" by Steven Stevenson. The video is a short animation film reimagining an 8-bit trailer to Skyrim. The video player shows the title "The Elder Scrolls V SKYRIM" and a progress bar at 0:06 / 0:37. Below the video, the channel name "Steven Stevenson" is visible with 37 videos and 179 views. The video was published on Feb 12, 2013. To the right of the video player, there is a list of recommended videos, including "FOREVE [short animated movie]", "Skyrim Mods - Week 104 - The Kinkiest Mod Ever?", "Beatmatching", "Dragonborn - Act I (Skyrim Fan Movie/Machinima)", "Elder Scrolls Lore: Ch.1 - Daedric Princes of Skyrim, Morrowind, Oblivion", "Skyrim Theme Remix [Lindsey Stirling and Peter Hollens Cover]", "The Elder Scrolls V - Skyrim 8-bit theme", and "TES: SKYRIM retro trailer (8-BIT)".

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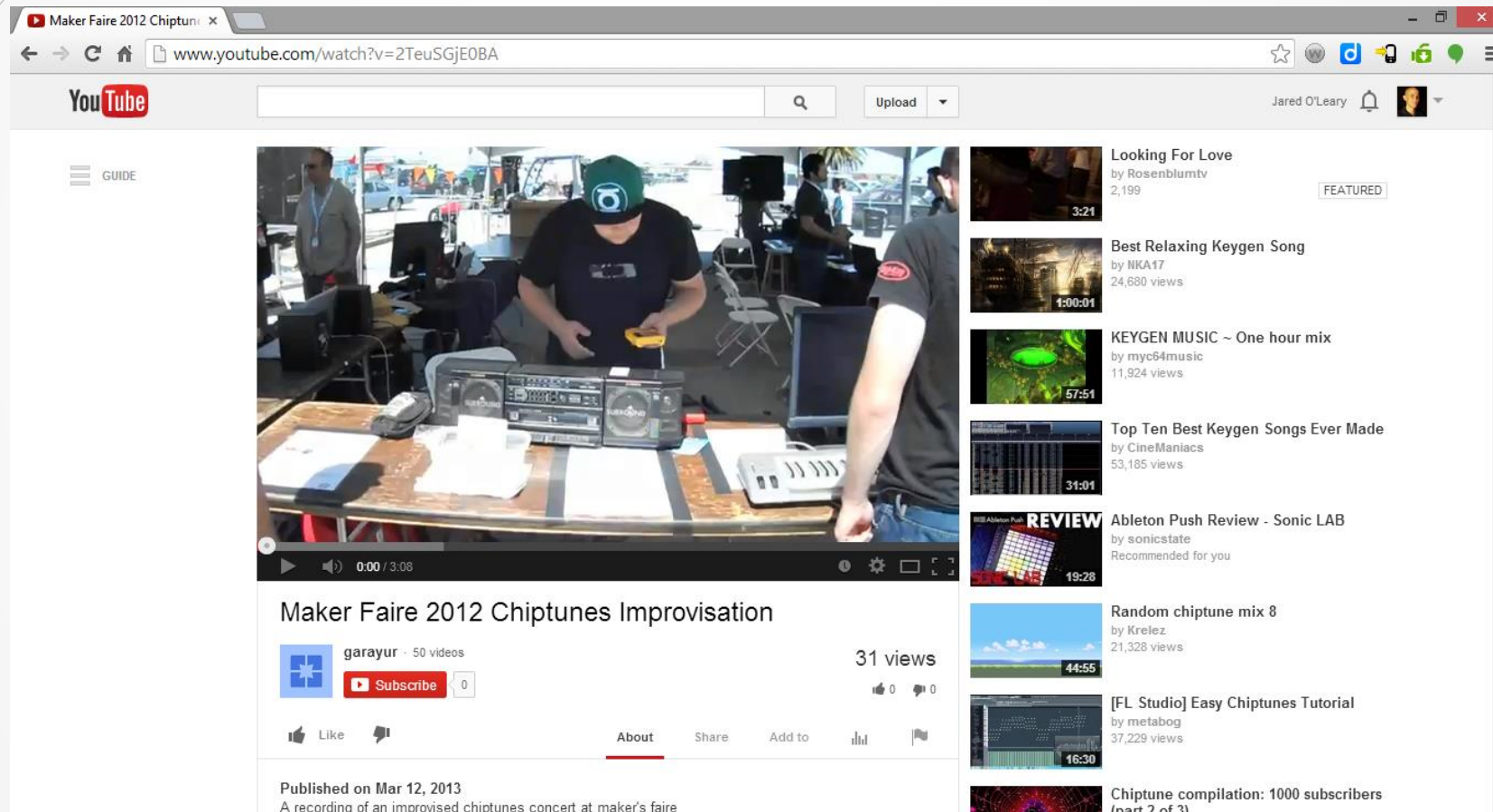
What could a project look like?

Interdisciplinary projects



What could a project look like?

Interdisciplinary STEM/STEAM projects



The screenshot shows a YouTube video player with the following details:

- Video Title:** Maker Faire 2012 Chiptunes Improvisation
- Channel:** garayur · 50 videos
- Views:** 31 views
- Published:** Mar 12, 2013
- Description:** A recording of an improvised chiptunes concert at maker's faire

The video player shows a person wearing a green cap with a white circular logo, standing behind a table with electronic equipment. The video progress bar is at 0:00 / 3:08.

Recommended Videos:

- Looking For Love by Rosenblumtv (2,199 views, 3:24)
- Best Relaxing Keygen Song by NKA17 (24,680 views, 1:00:01)
- KEYGEN MUSIC ~ One hour mix by myc64music (11,924 views, 57:51)
- Top Ten Best Keygen Songs Ever Made by CineManiacs (53,185 views, 31:01)
- Ableton Push Review - Sonic LAB by sonicstate (19:28)
- Random chiptune mix 8 by Krelez (21,328 views, 44:55)
- [FL Studio] Easy Chiptunes Tutorial by metabog (37,229 views, 16:30)
- Chiptune compilation: 1000 subscribers (part 2 of 3)



Let's play!



What just happened?

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



Some considerations



Why 8-bit and not any MIDI data?

- ▶ Technological constraints = project criteria
 - ▶ Memory = Limited number of measures
 - ▶ Evolving environments = Evolving music
 - ▶ Key/Mode = Key/Mode
 - ▶ Limited channels = Limited number of voices
 - ▶ Wave form limitations = Limited timbre options



How do I...

- ▶ ...find the games to play?
- ▶ ...know which games are appropriate to play?
- ▶ ...find/create 8-bit sounds?
- ▶ ...find out what technology to use?
- ▶ ...teach a project like this?

Questions?

- ▶ www.JaredOLEary.com
 - ▶ Music Education Presentations
 - ▶ 8-bit Composition Unit?

