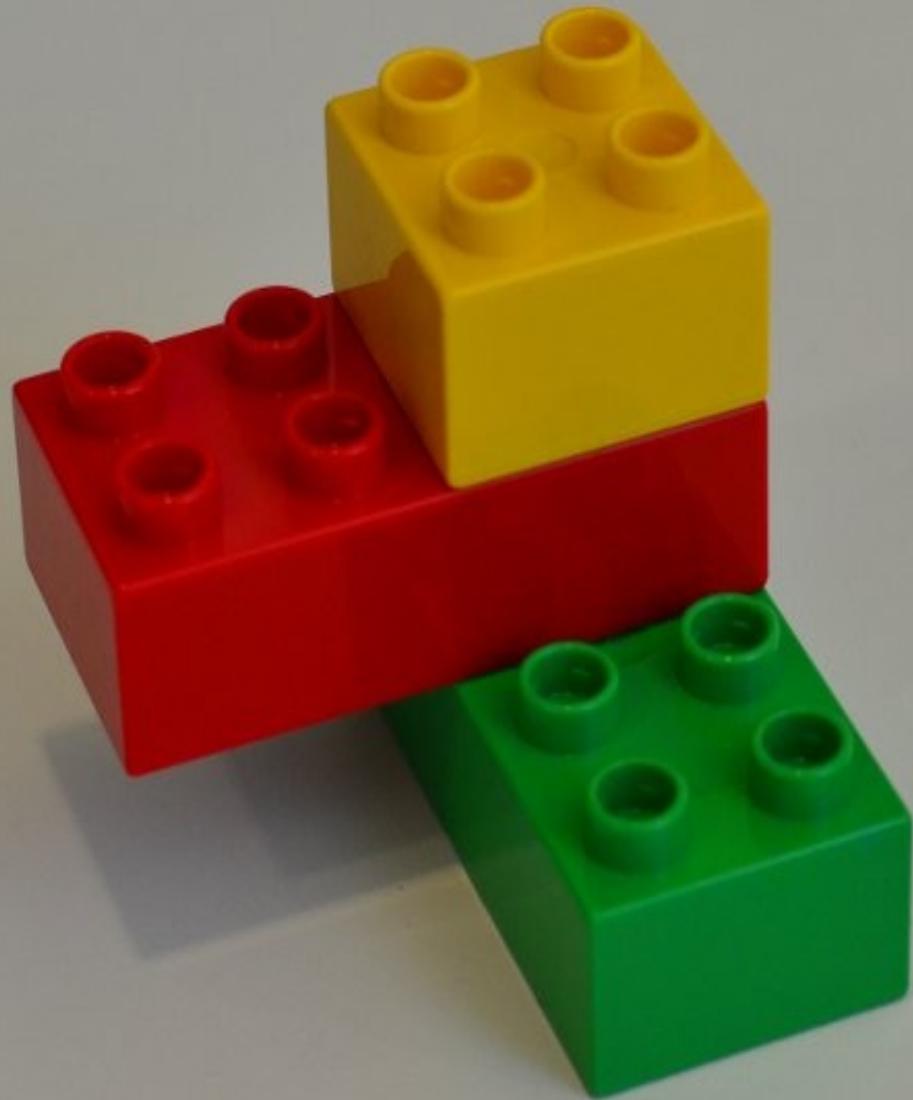


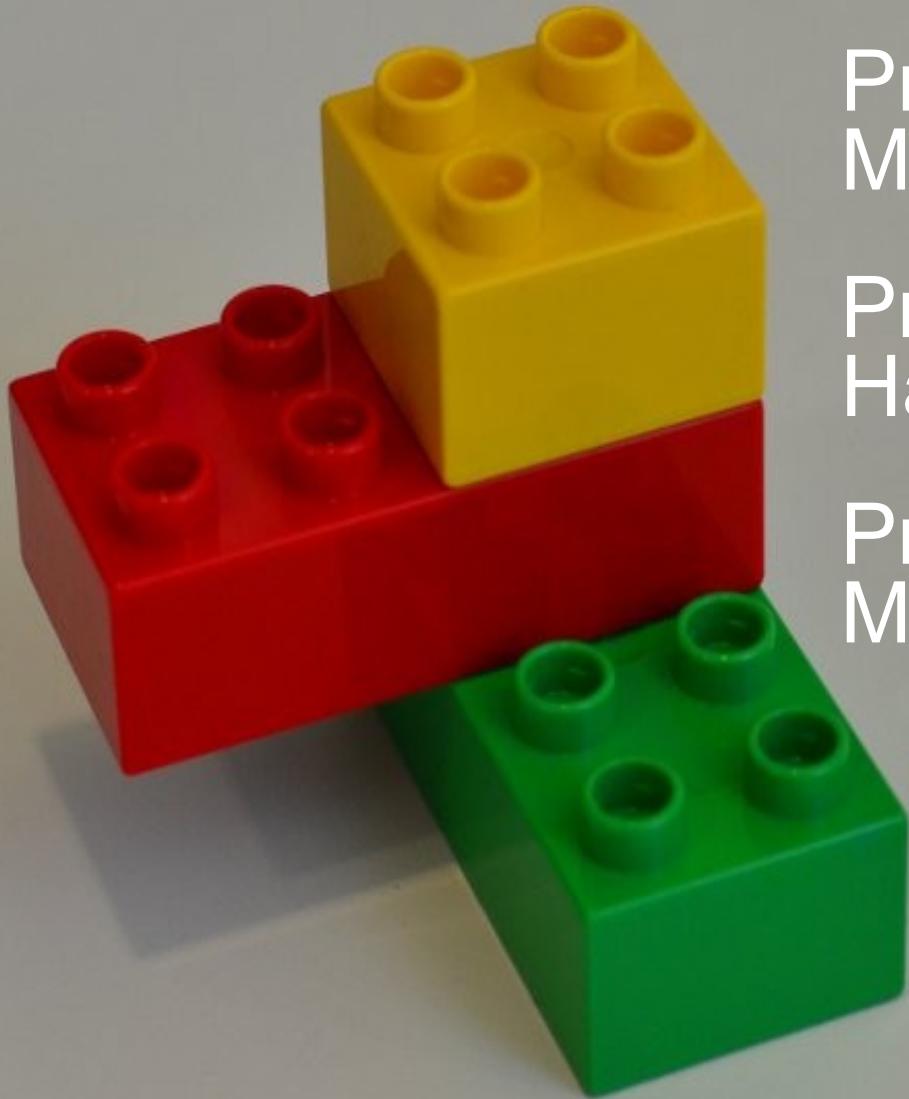
# designing for remixing



Supporting an  
Online Community  
of Amateur  
Creators

Andrés Monroy-Hernández  
MIT Media Laboratory

# committee



Prof. Mitchel Resnick  
MIT Media Lab

Prof. Yochai Benkler  
Harvard Law School

Prof. Robert Miller  
MIT CSAIL

# acknowledgements



Financial support from:  
MIT Media Lab research consortia,  
NSF, Microsoft, Intel, MacArthur  
Foundation, Google, Bradesco,  
Samsung, Telmex, Iomega

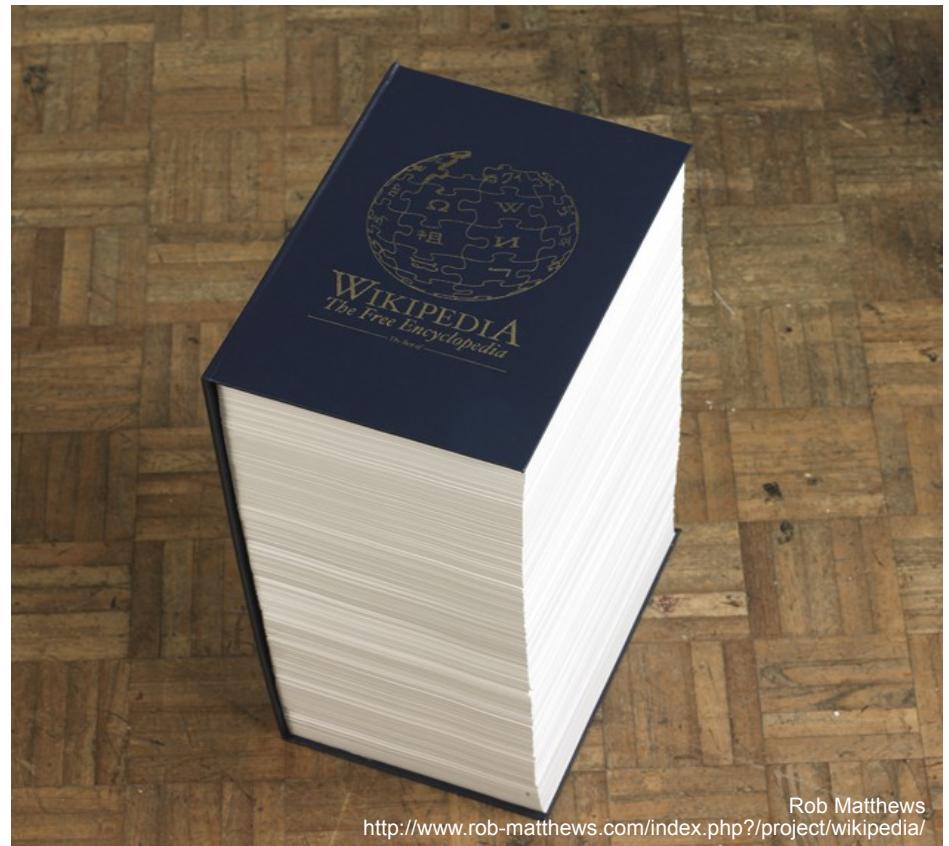
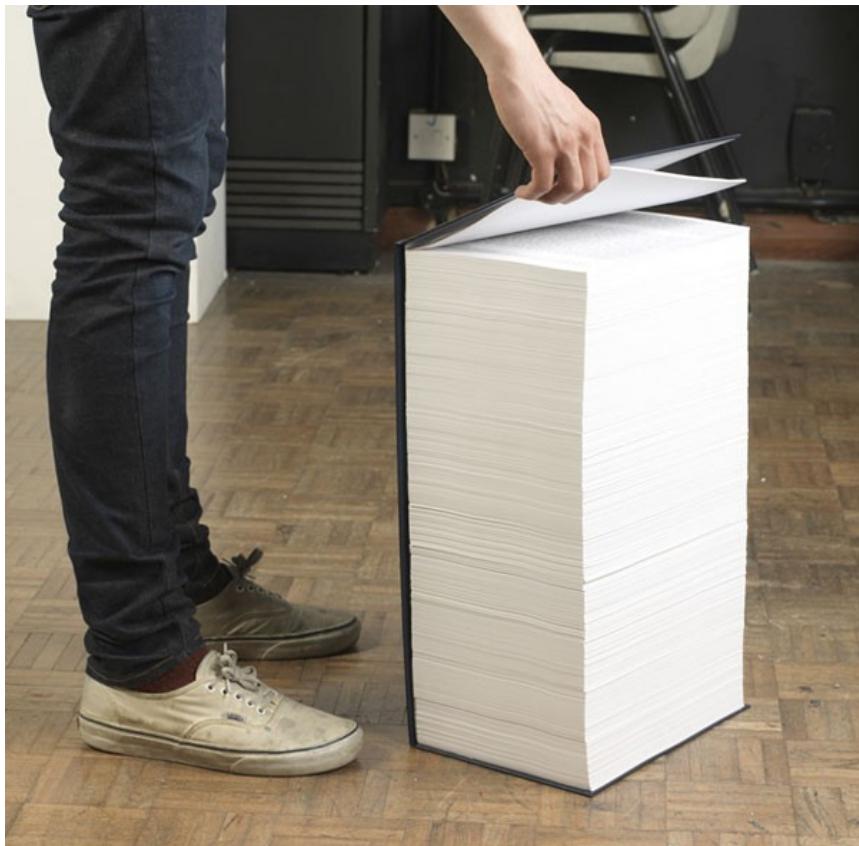
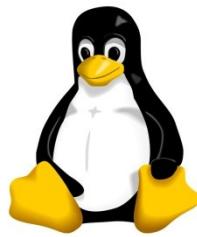
Amon Millner, Anant  
Seethalakshmi,  
Anupom Syam, Amos  
Blanton, Ashok Gond,  
Benjamin Mako Hill,  
Chris Garity, danah  
boyd, Cecilia Aragon,  
Dan Jared, Evelyn  
Eastmond, Eric  
Rosenbaum, Han Xu,  
Jay Silver, Jeff  
Nickerson, John  
Maloney, Karen  
Brennan, Kemie  
Guaida, Mark Goff,  
Natalie Rusk, Nick  
Bushak, Paul Medlock-  
Walton, Ricarose  
Roque, Rita Chen,  
Sayamindu Dasgupta,  
Stephanie Gayle,  
Tamara Stern, Ubong  
Ukoh, Vladimir Vuksan

1. Background
2. Research Questions
3. Online Community
4. Previous Studies
5. Proposed Work



1. Background
2. Research Questions
3. Online Community
4. Previous Work
6. Proposed Work





Rob Matthews  
<http://www.rob-matthews.com/index.php?/project/wikipedia/>

## Charlie bit my finger - again !



42 videos [Subscribe](#)



0:23 / 0:56

360p

[Like](#) [Dislike](#) [+ Add to](#) [Share](#)

312,824,574

Uploaded by [HDCYT](#) on May 22, 2007

640,735 likes, 78,277 dislikes

Even had I thought of trying to get my boys to do this I probably couldn't have.  
Neither were coerced into any of this and neither were hurt (for very long)

[Show more](#)

As seen on: [time.com](#)



2:09

### Kanye and Charlie Autotuned!

Kanye West, Balloon boy, **Charlie Bit My Finger**, and more -- AUTO-TUNED! Click here to subscribe: [www.youtube.com Free Kanye & Charlie Bit Me ...](#)

by [barelypolitical](#) | 1 year ago | 6,196,521 views



1:01

### Charlie Bit My Finger - Original Proper SPARTA Remix!!!

I Tried to make this as similar to the real Sparta Remix song and i hope you enjoy All rights belong to the footage of **Charlie** and Harry belong to ...

by [HardNRGregularz](#) | 2 years ago | 1,249,231 views



0:40

### Charlie Bit My Finger Reprise

Two college guys remake charlie bit my finger  
by [Tteamart007](#) | 3 years ago | 4,232,827 views



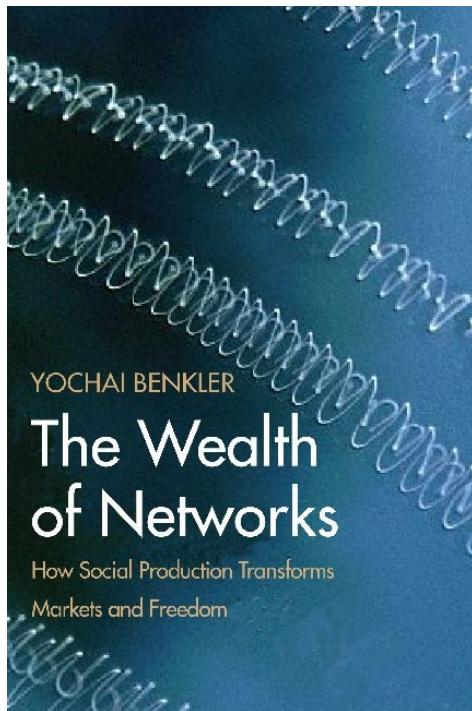
3:19

### Charlie Bit Me Ouch Charlie Hip Hop remix 2011

Remix done by Charmer  
by [zildjiansbestfriend](#) | 2 weeks ago | 442 views

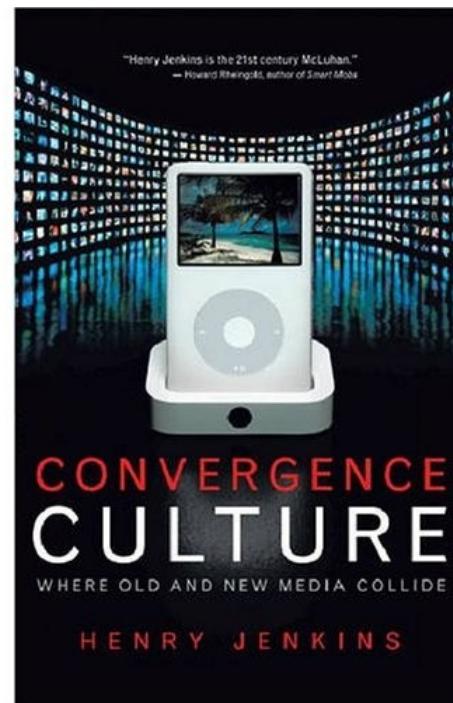
HD

## Commons-based Peer Production



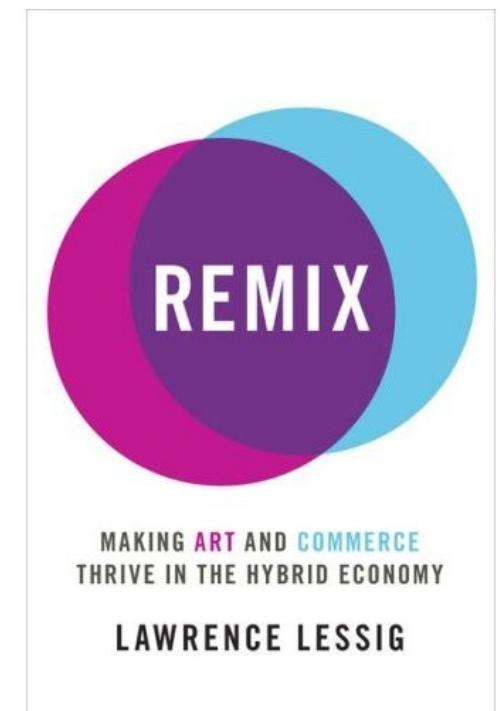
Benkler 2006

## Convergence Culture



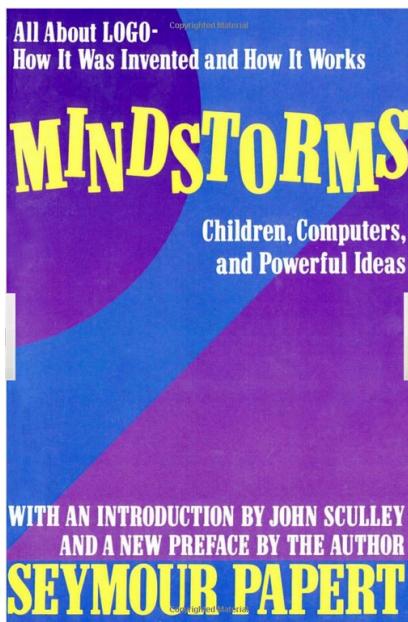
Jenkins 2006

## Remix Culture



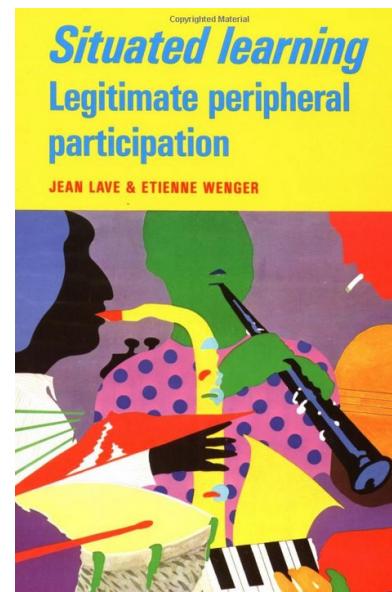
Lessig 2008

## Constructionism



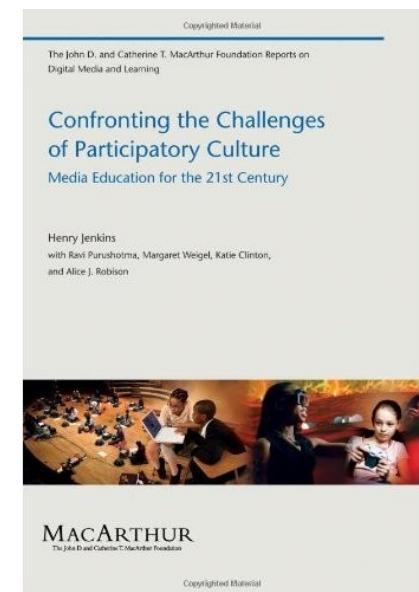
Papert (1980)

## Communities of Practice



Lave and & Wenger (1991)

## New Media Literacy Skills



Jenkins (2009)

## **Video**

jumpcut interviews (Diakopolous et al. 2007)  
System design (e.g. Shaw and Schmitz 2006)

## **Music**

ccMixter network (Cheliotis and Yew 2009)

## **Text**

Wikipedia territoriality (Thom-Santelli et al, 2009)

## **Web Mashups**

(Bolin et al., 2005; Wong and Hong, 2007)



# remix

(fork, mashup, appropriation, sample, bricolage, pastiche, collage)





## Perspectives:

- System Design
- Learning
- Social and Cultural
- Ethical

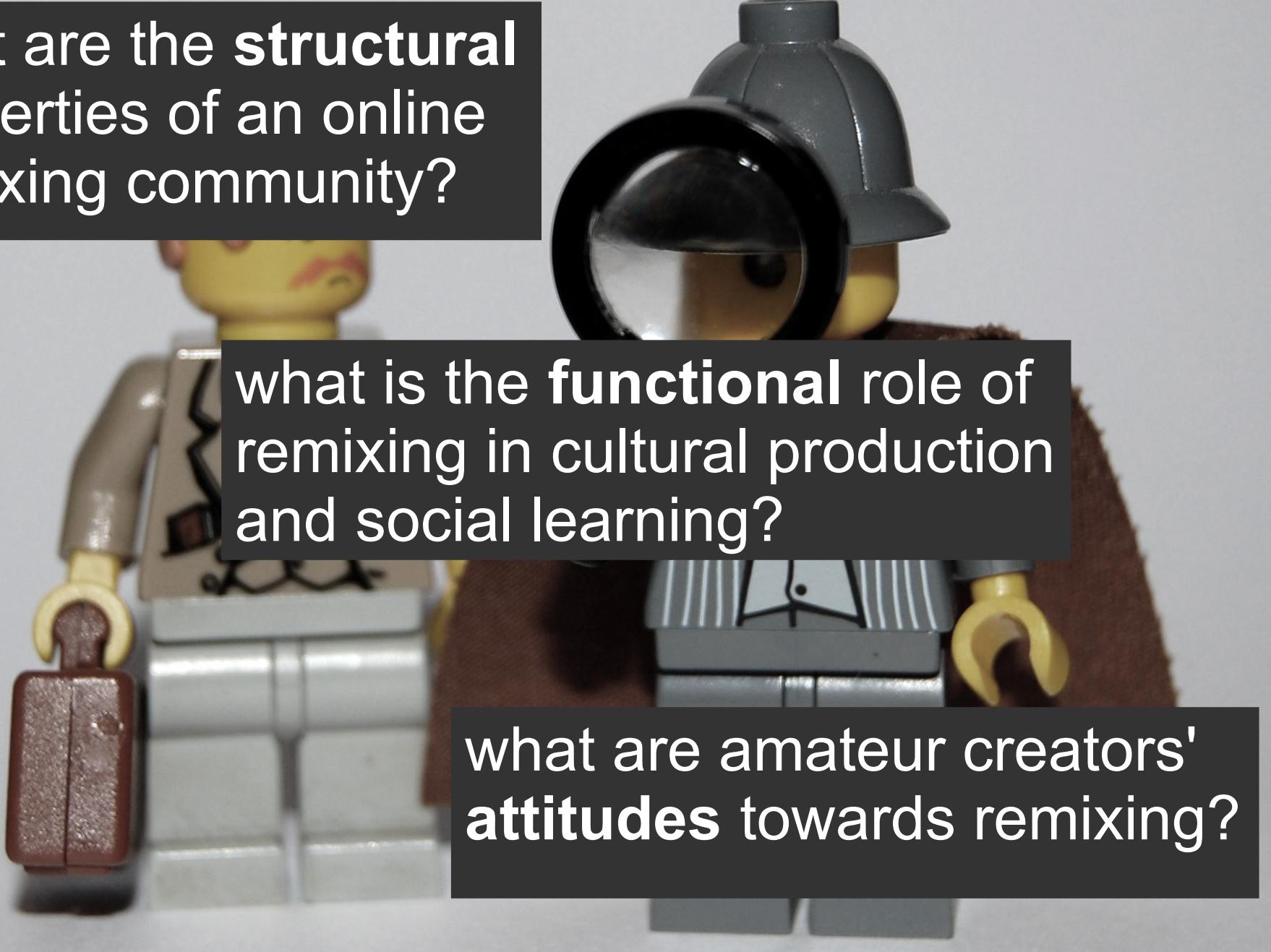


1. Background
2. Research Questions
3. Online Community
3. Previous Work
4. Proposed Work





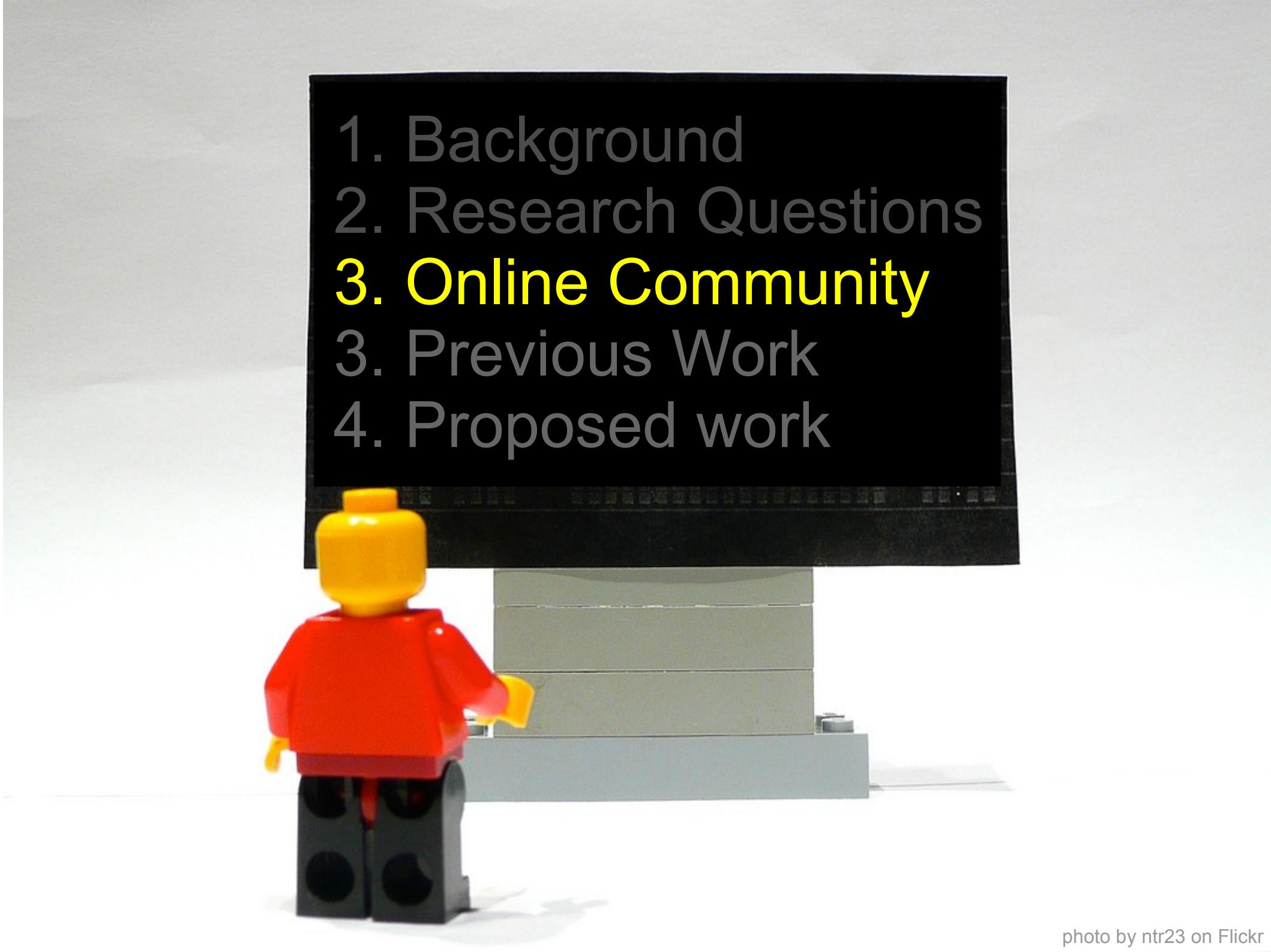
# How to design socio-technical systems that support remixing?



what are the **structural**  
properties of an online  
remixing community?

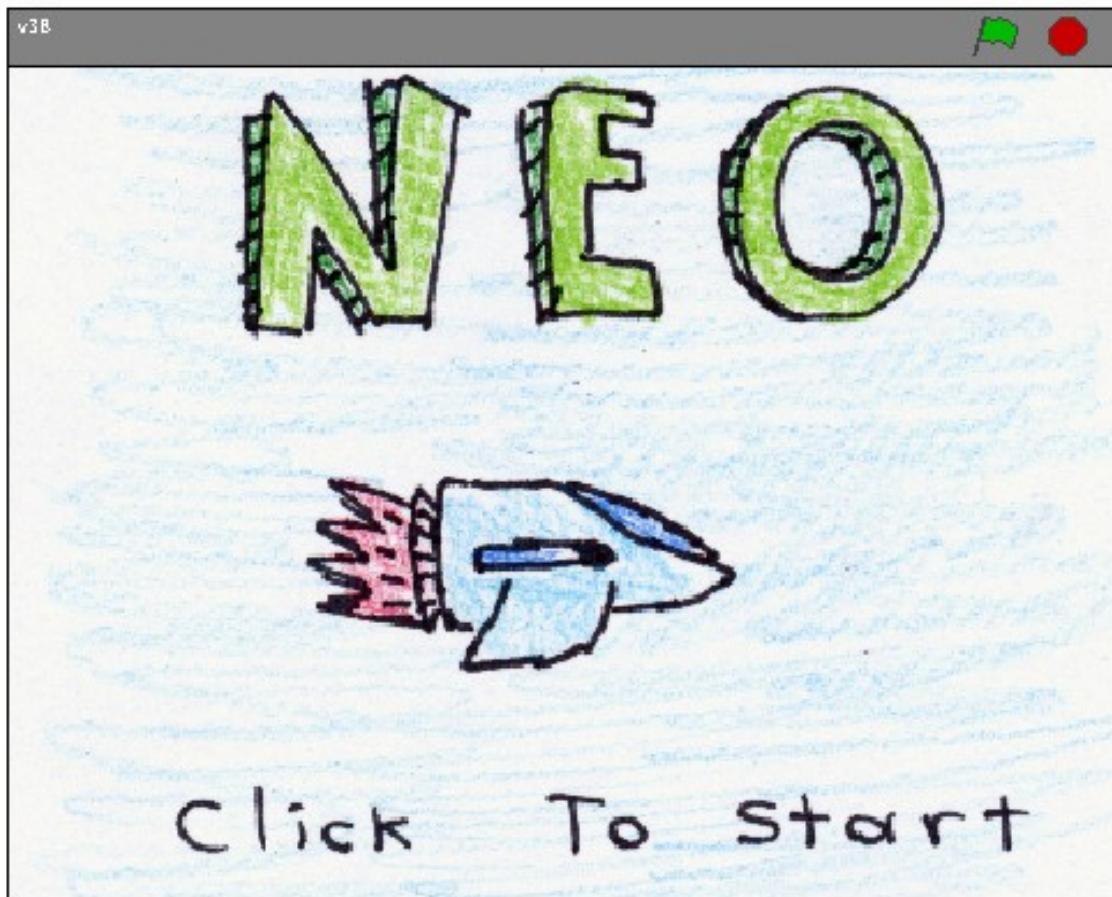
what is the **functional** role of  
remixing in cultural production  
and social learning?

what are amateur creators'  
**attitudes** towards remixing?

- 
1. Background
  2. Research Questions
  3. Online Community
  3. Previous Work
  4. Proposed work

[Login](#) or [Signup](#) for an account 

## Neo



kuri shared it 2 years, 4 months ago



Some rights reserved

7125 views, [26 taggers](#), 393 people love it, [9 remixes](#) by 7 people, 1433 downloads, in [72 galleries](#)

Download this project!



Download the 27 sprites and 176 scripts of "[Neo](#)" and open it in [Scratch](#)

### Project Notes

The instructions are in the game  
Post your high score and difficulty level!

And please post a love it!  
because i will make more games if you do!

UPDATE: added ship customization!

UPADTE: added a boss on level nine!

### Tags

[game](#)

[animation](#)

[art](#)

[cool](#)

Motion      Control  
 Looks      Sensing  
 Sound      Operators  
 Pen      Variables

touching [ ] ?  
 touching color [ ] ?  
 color [ ] is touching [ ] ?

ask [What's your name?] and wait

[answer]

mouse x  
 mouse y  
 mouse down?

key [space] pressed?

distance to [ ]

reset timer

[timer]

x position [ ] of [bullet1]

[loudness]  
 [loud?]

slider [ ] sensor value

sensor [button pressed] ?

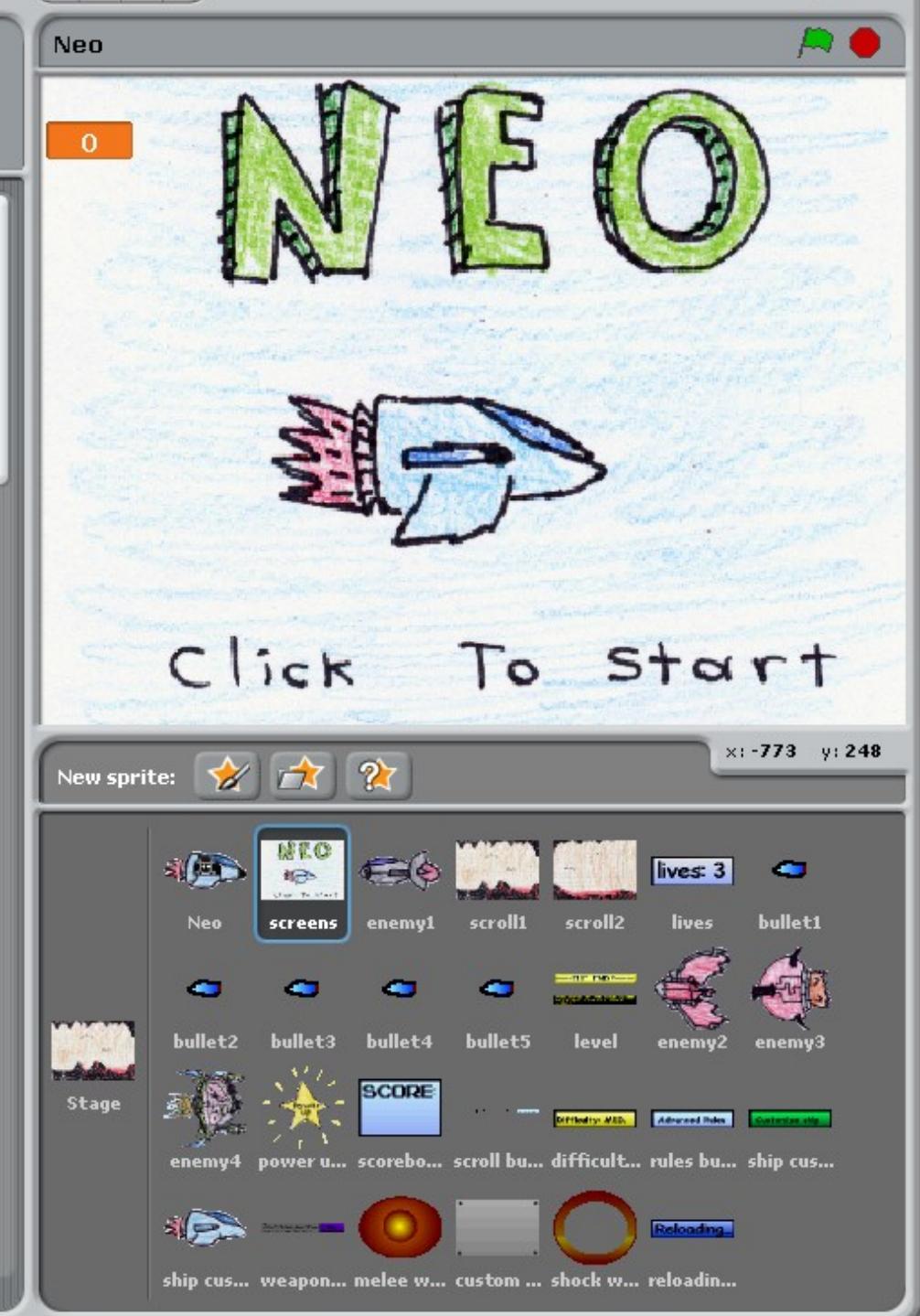
**screens**

**Scripts**      Costumes      Sounds

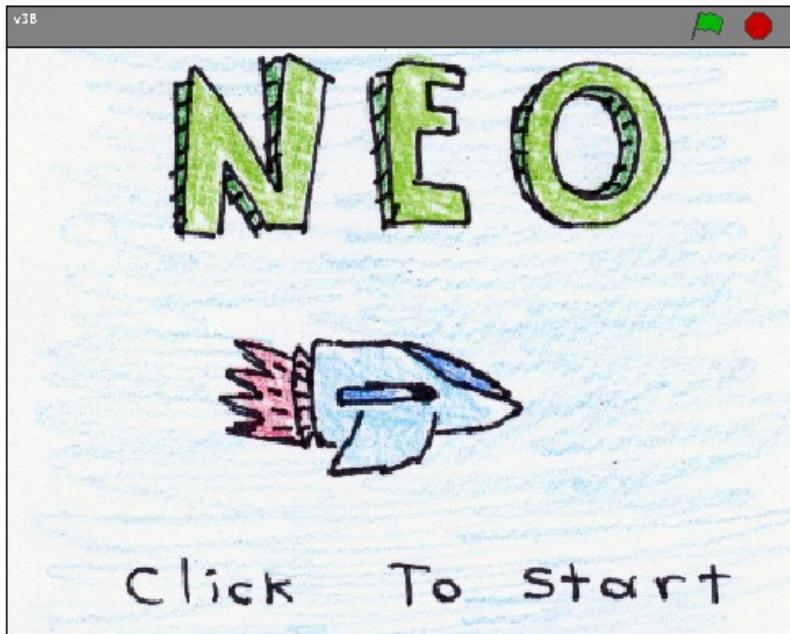
```

when screens clicked
if [game over v] = [0]
if [costume # v] = [1]
repeat (5)
  change [pixelate v] effect by [20]
  clear graphic effects
  broadcast [started2 v]
  switch to costume [costume3 v]
  set [started? v] to [1]
  wait (1) secs
else
  broadcast [start v]
repeat (10)
  change [ghost v] effect by [10]
  hide
  clear graphic effects
  set [started? v] to [2]
when green flag clicked
set [code v] to [0]
wait (0.2) secs
repeat until [started? v] = [2]
  if [key m v] pressed?
    set [code v] to [1]

```



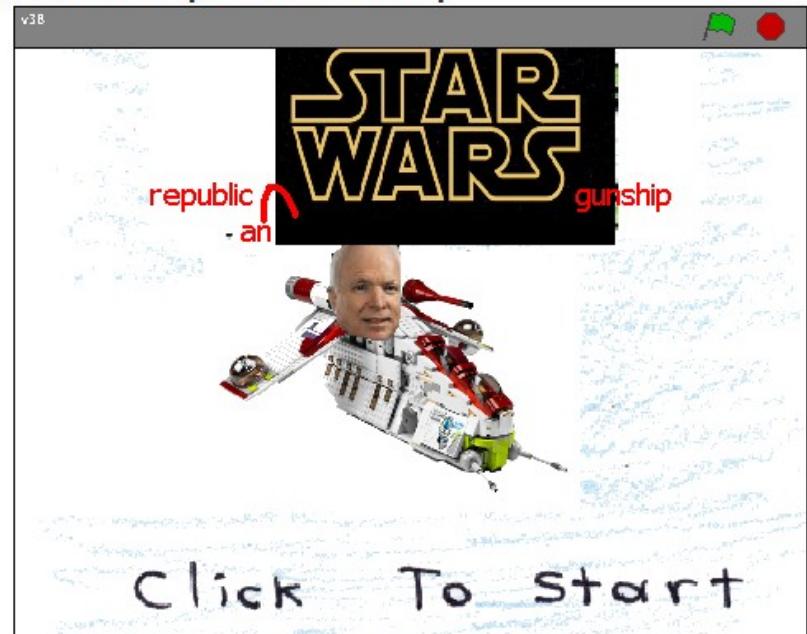
Neo



 [kuri](#) shared it 2 years, 4 months ago

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star wars: Republican Gunship



 [pandadark](#) shared it 1 year, 7 months ago

 Based on [kuri's project](#)

---

 [rbolsius](#) 1 year, 3 months ago

is that hillary clinton!?! funny!!

---

 [pandadark](#) 1 year, 3 months ago

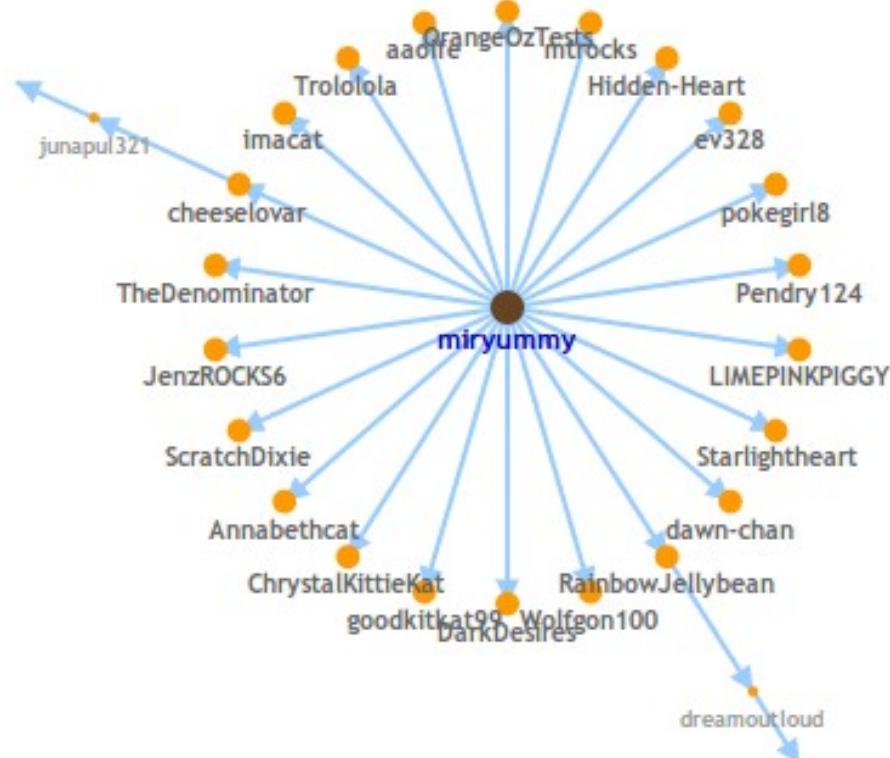
Yeah. But I made this to support Democrats!:)

[\(view all replies\)](#)

[Login](#) or [Signup](#) for an account

search

## Remix Visualization



[THErandomest,funnie...](#)



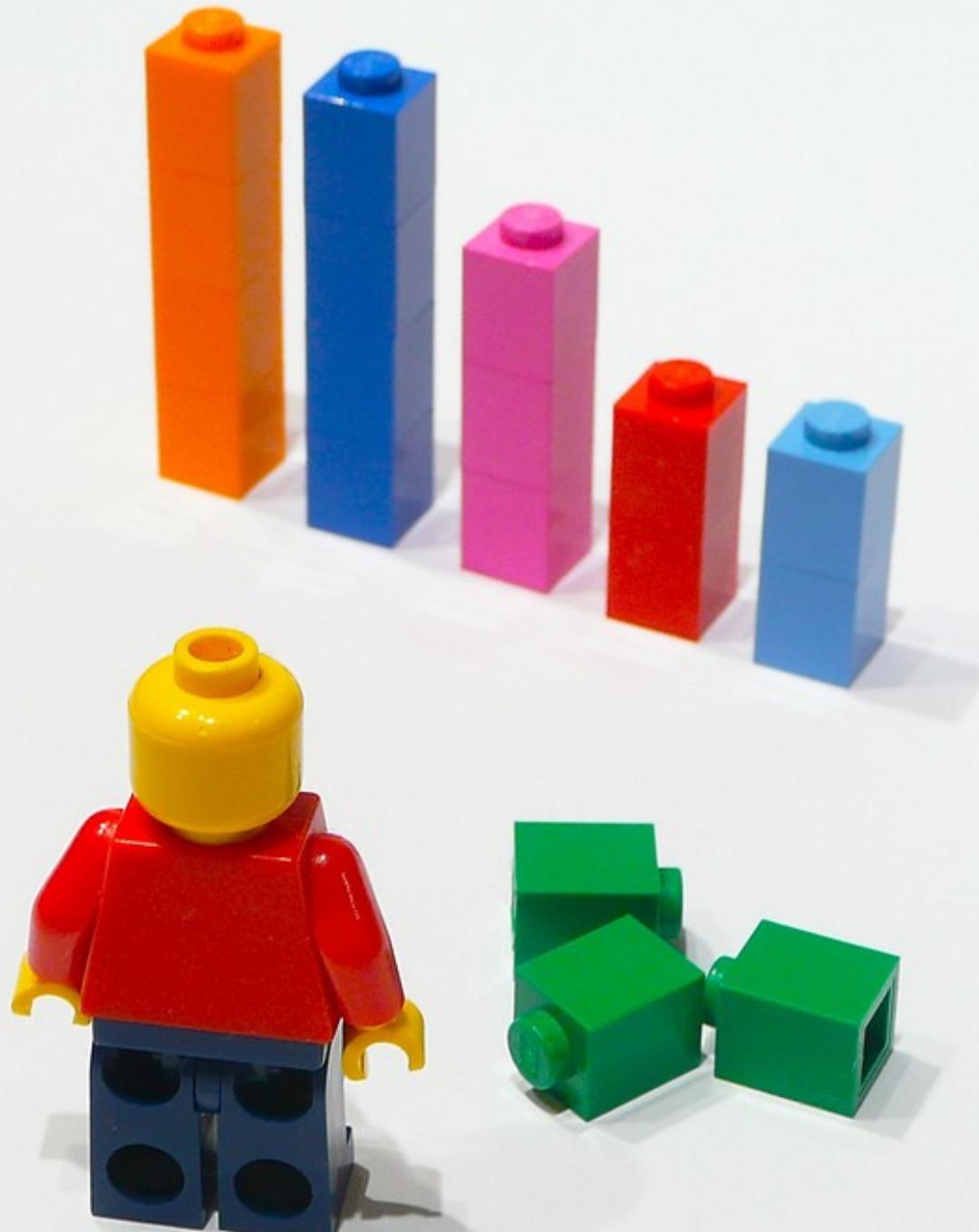
[miryummy](#)

**1.8 million  
projects**

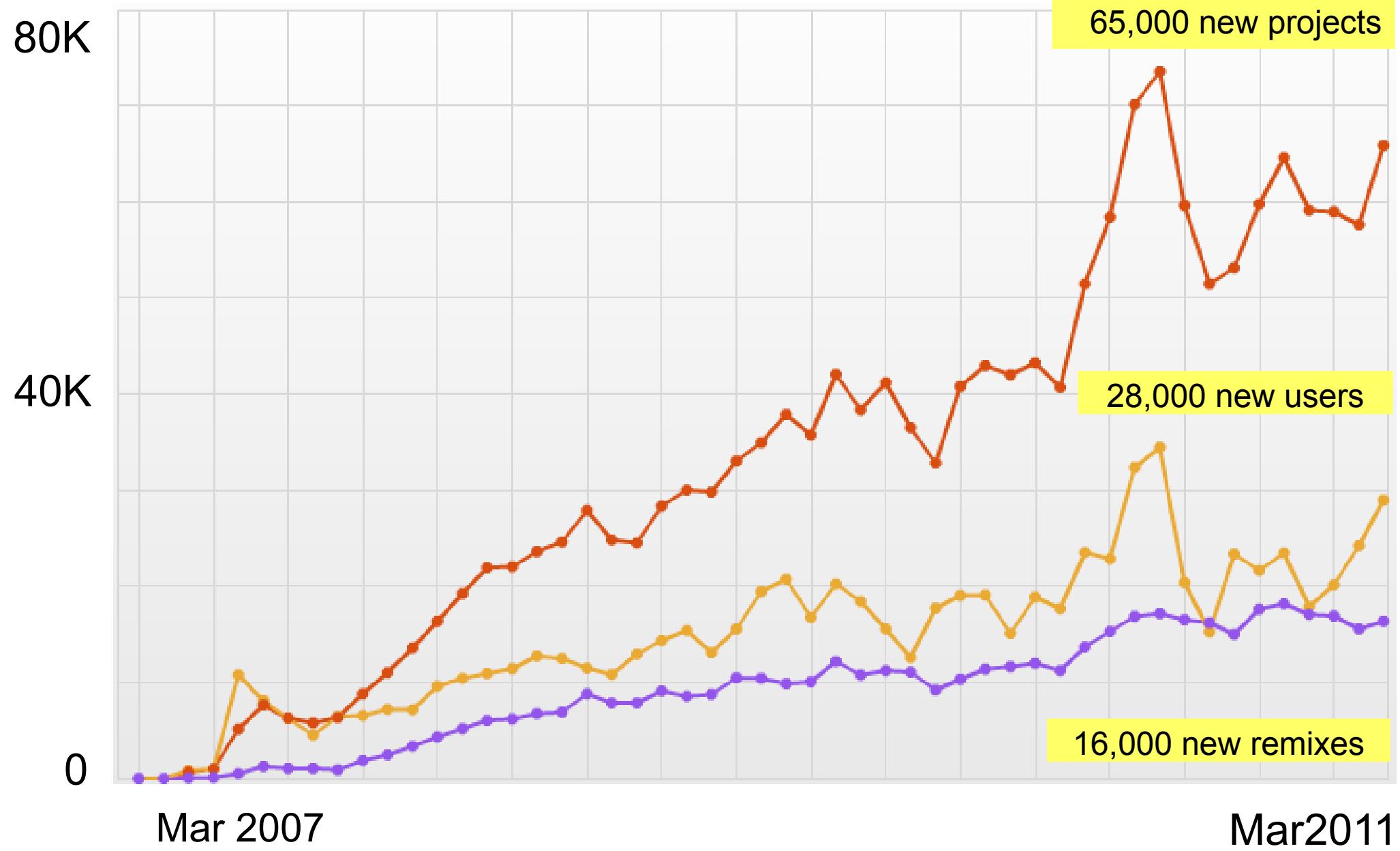
**25%  
remixes**

**800,000  
accounts**

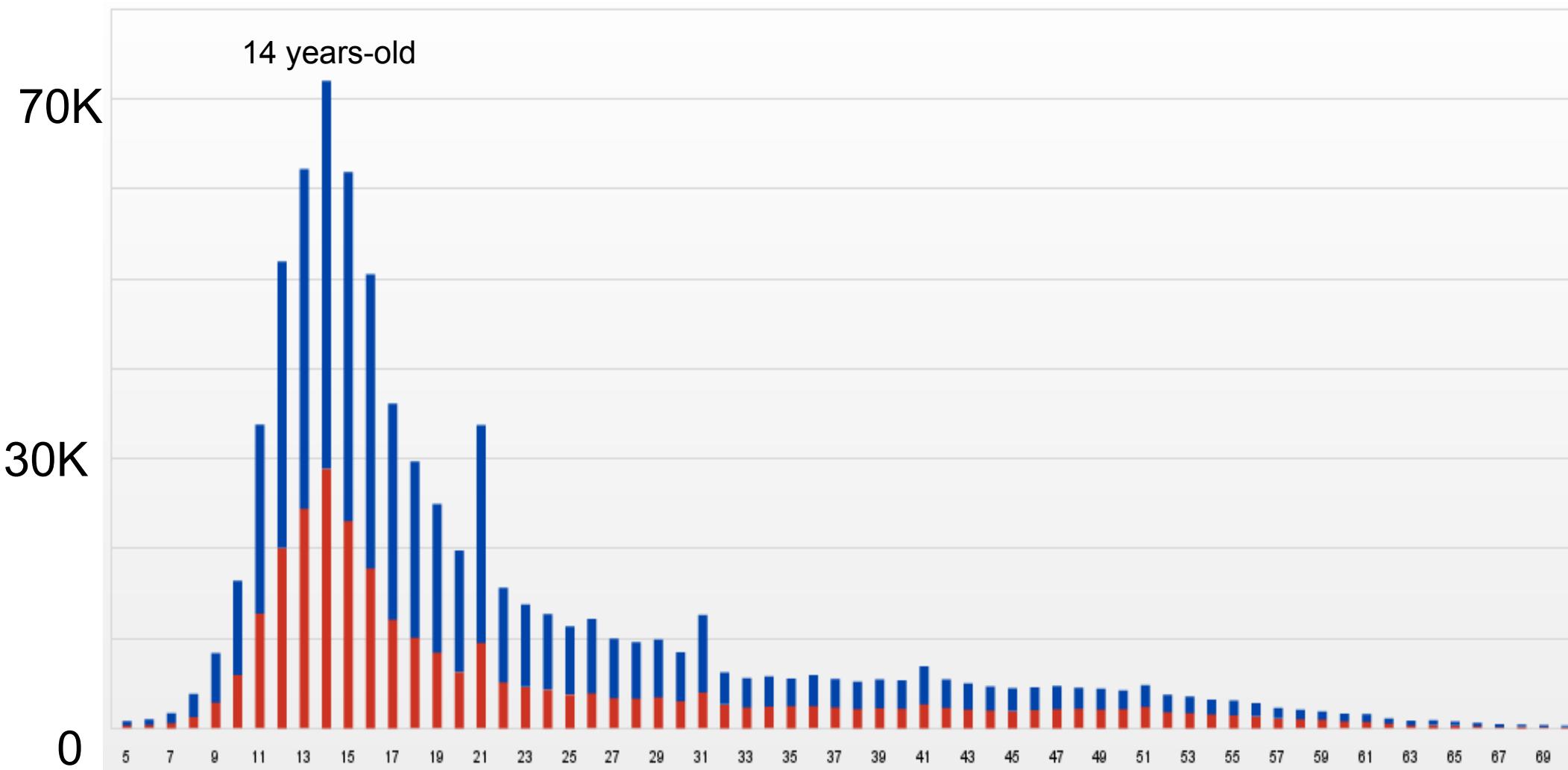
**200,000  
creators**



# Monthly Activity



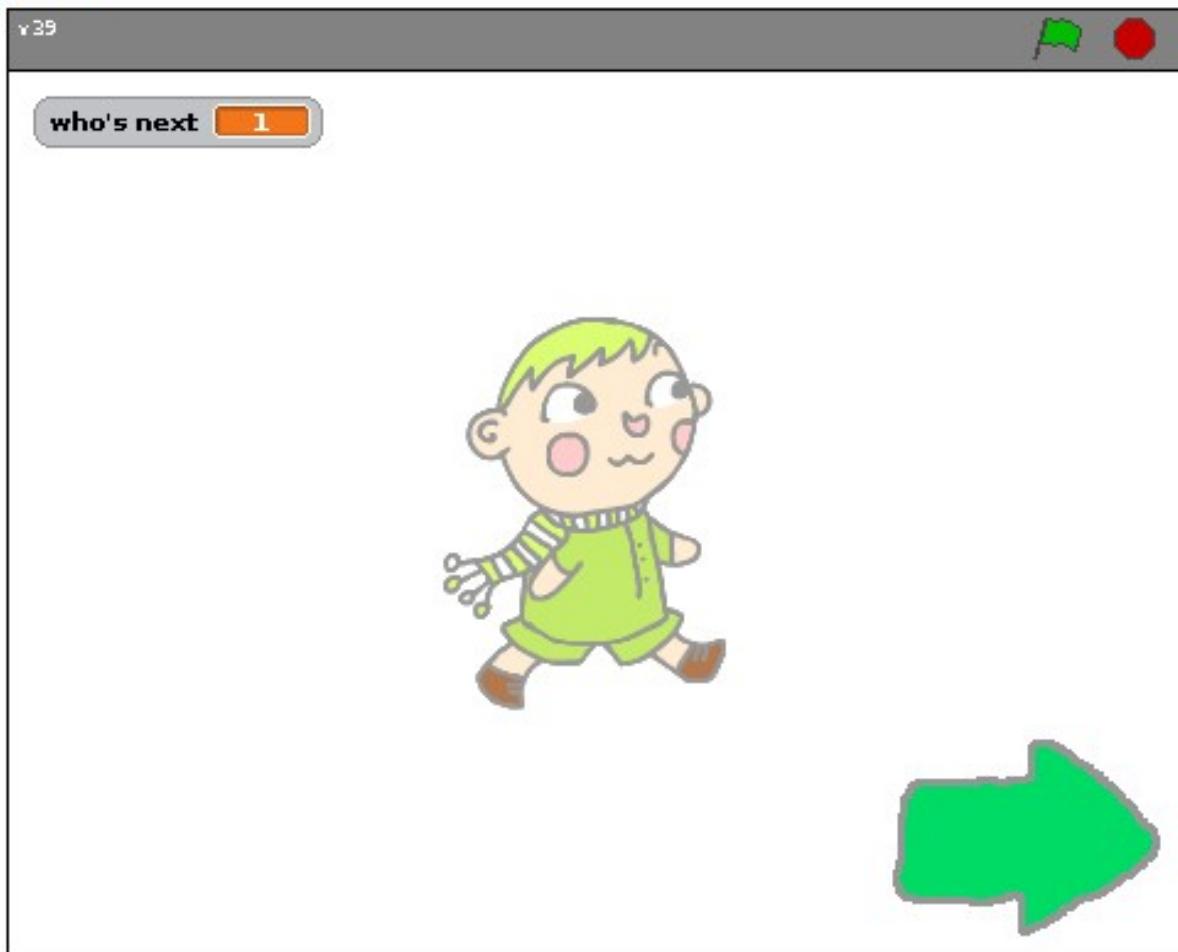
# Age Distribution



1. Background
2. Research Questions
3. Online Community
- 4. Previous Work**
5. Proposed Work



## sprites



[Boopaloo](#) shared it 3 years, 9 months ago

Some rights reserved

## Download this project!



Download the 6 sprites and 9 scripts of "[sprites](#)" and open it in [Scratch](#)



### Project Notes

Here are some simple walking sprites, each one only has two costumes.... They are perfect for platform games.... if you wanna sprite of your very own leave a comment in my gallery ([link to gallery](#)) say what you want and I will make it for you... be patient, coz it might take a few weeks.... I am very busy ^o^

### Tags

Add Tags



SonicPops 3 years, 9 months ago

Thanks, Boopaloo! Could you make a Mountain background from Bird's-eye view? (Which means looking down, up in the air like a bird) Thanks again! I would reccomend this... I'm going to give it a lovelet and put it on my favourites in case I need more sprites for my minature company, Crank\_INC. It's not a REAL company, just one that I made up. We make very good quality games, with that, I've only made 2 so far (I don't want to make rubbish ones) So I even made a Crank\_INC gallery! All you do is simply send in a project, I will review it back in the Crank gallery, and, then, if it's good enough, I will grant you a member of Crank\_INC! Anyway, once again, thanks!



Co-co character deginer (sic) and Sound operator  
Character and Background desigener (sic)  
Proggramer (sic) and chairlady and game creator.  
Co-character deigner and background scroller expert  
Programmer and webpage designer

# 3 months, 6 games 17 remixes per project

## Newest Projects in Gray Bear Productions

Sort by: [creator](#) | [title](#) | [creation date](#) | [addition date](#) |

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GrayBear

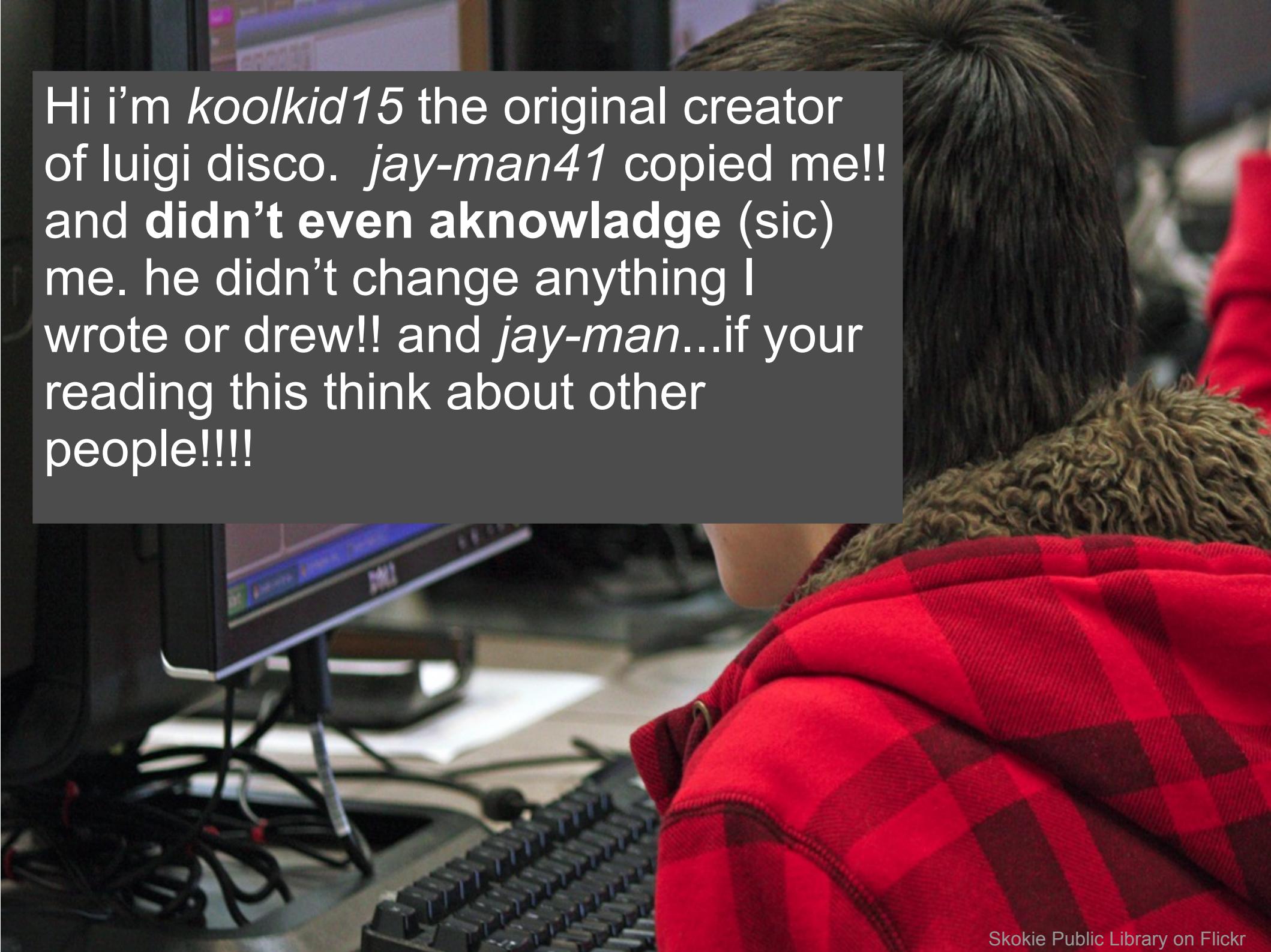
Gallery owner: [forcemaster](#) 

Created: 2 years, 10 months ago

**Gallery description**

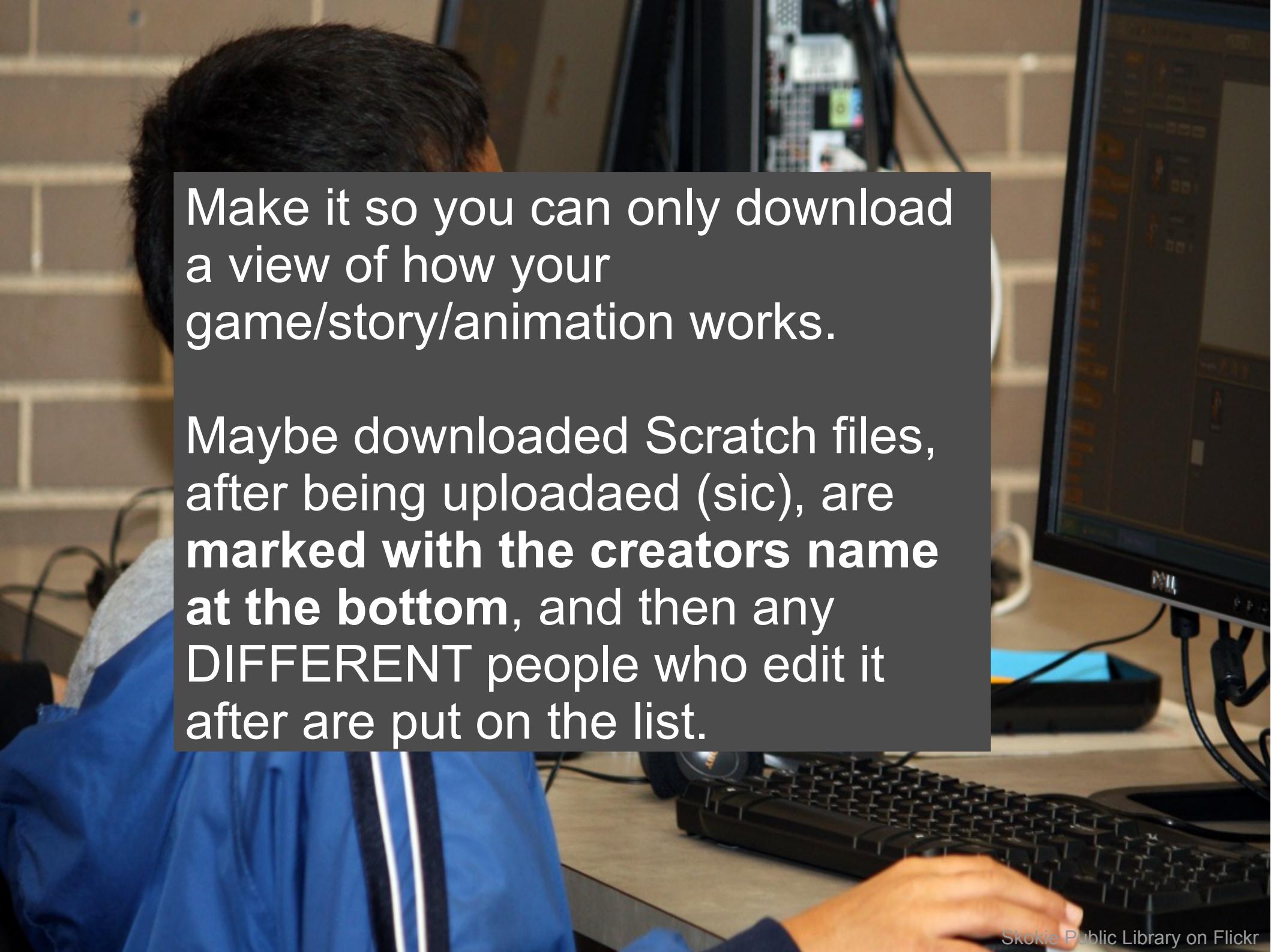
This is the main gallery of Gray Bear Productions.

Hi i'm *koolkid15* the original creator  
of luigi disco. *jay-man41* copied me!!  
and **didn't even aknowladge** (sic)  
me. he didn't change anything I  
wrote or drew!! and *jay-man*...if your  
reading this think about other  
people!!!!



Negative  
comments  
(22%)

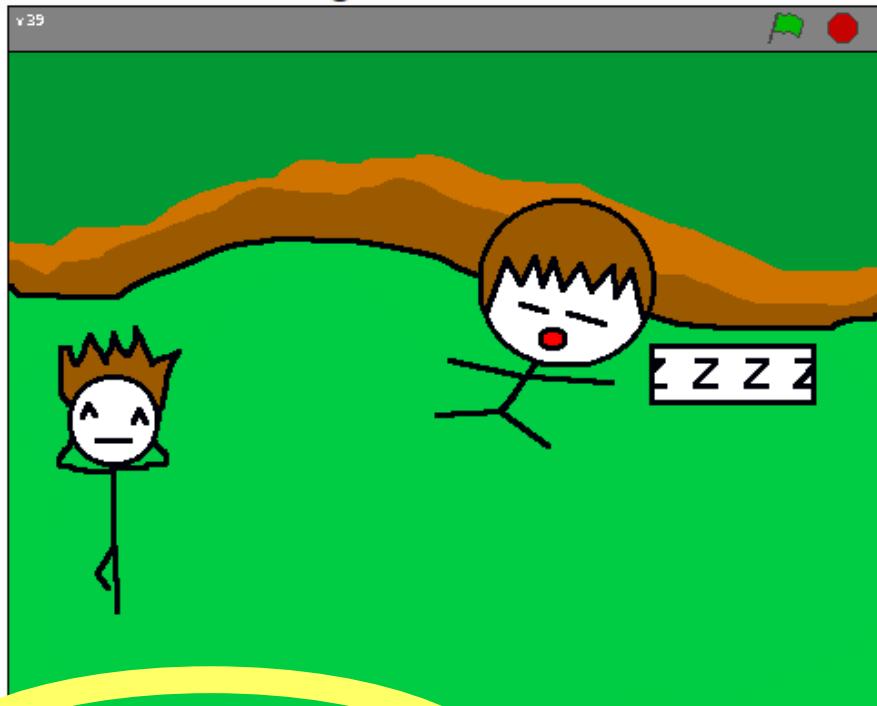
Positive  
comments  
(21%)



Make it so you can only download a view of how your game/story/animation works.

Maybe downloaded Scratch files, after being uploaded (sic), are **marked with the creators name at the bottom**, and then any **DIFFERENT** people who edit it after are put on the list.

## Add Yourself Relaxing on a Cliff Remix



[BobbyF](#) shared it 1 week, 1 day ago

Based on [CosmicProjectz's project](#)

Some rights reserved

Download this  
project!



Download the 3 sprites and 4 scripts of "[Add Yourself Relaxin...](#)" and open it in [Scratch](#)

### Project Notes

REMIX!!!! April 22, 2011:  
Started out. Started by  
CosmicProjectz.

### Tags

[animation](#)  
[art](#)  
[remix](#)  
[cliff](#)  
[bobbyf](#)  
[cosmicprojectz](#)

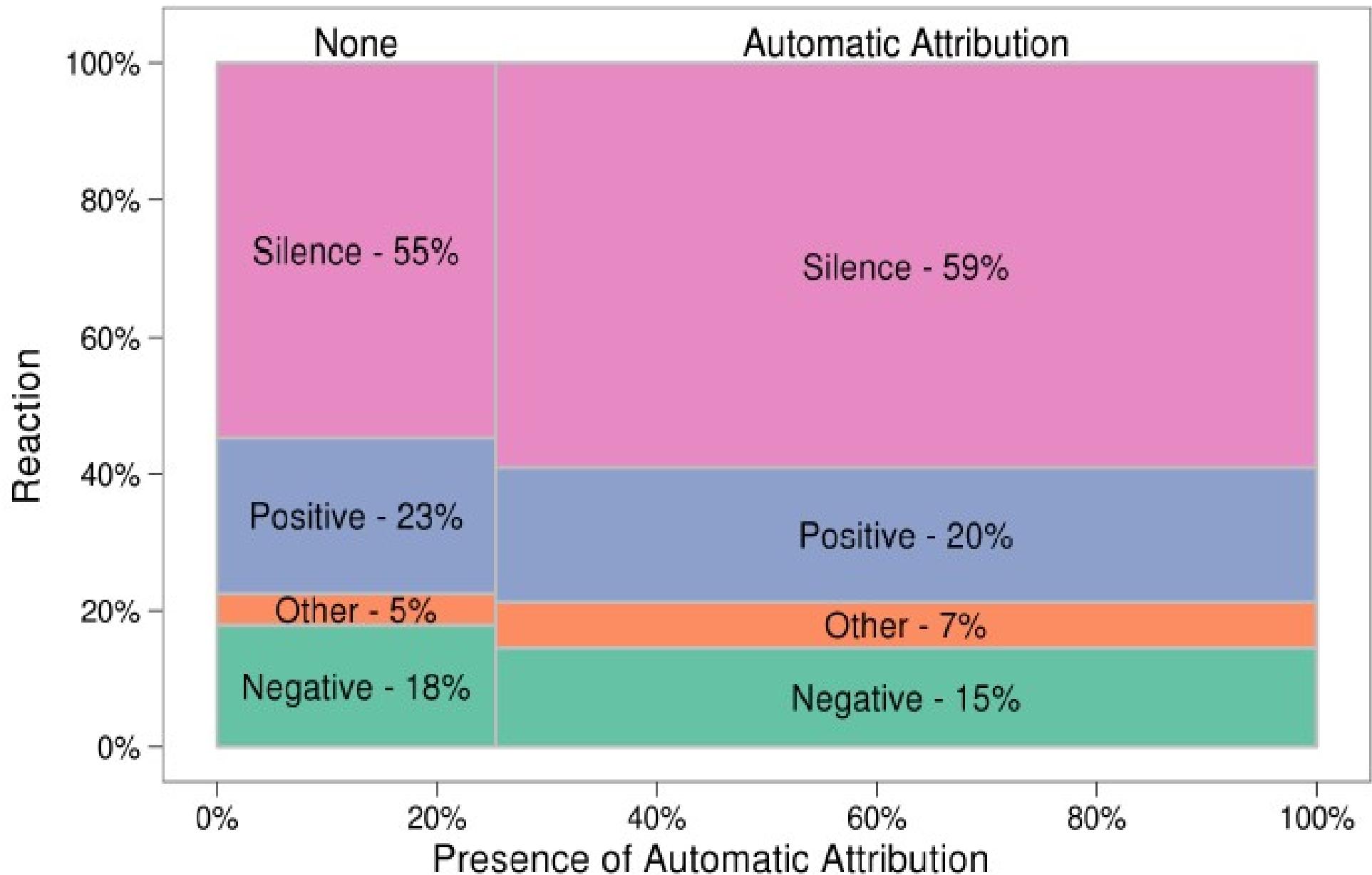
### Add Tags

Add



[BobbyF](#) shared it 1 week, 1 day ago

Based on [CosmicProjectz's project](#)



$n = 932, \chi^2 = 3.94; df = 3; p = 0.27$



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search

## chop shop purple edition



Download this project!



Download the 20 sprites and 40 scripts of "[chop shop purple edition](#)" and open it in Scratch

### Project Notes

You can move with the arrow keys. --- I created this project by remixing Red's project.

### Tags

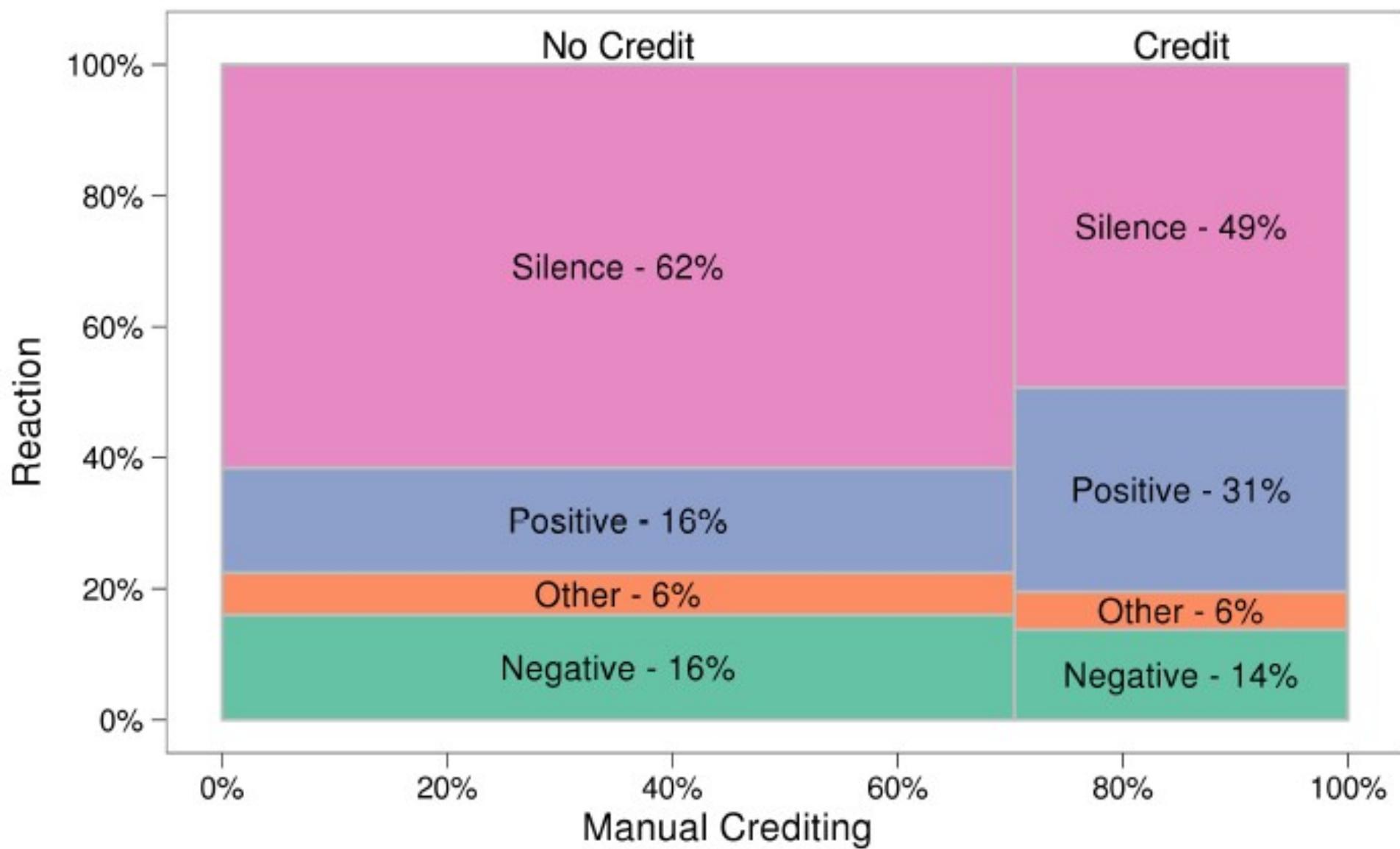
Add Tags

Add



[Square](#) shared it 1 year, 4 months ago

Some rights reserved



n = 932,  $\chi^2 = 27.60$ ; df = 3; p < 0.001

[Login](#) or [Signup](#) for an account 

## Newest Projects in The Copy Cat Cops

Sort by: [creator](#) | [title](#) | [creation date](#) | [addition date](#) |

[Subscribe](#)[Copy Cat Cops...](#)by [croum](#)[Zoey101yay's ...](#)by [ZOEY101YAY](#)[CCC card](#)by [mudkip27](#)[ccc](#)by [ktnina2](#)[ccc card](#)by [FutureSoldier](#)

Project deleted  
by creator.

[Copy Cat Cops...](#)by [deebee27](#)Gallery owner: [emilypie](#)

Created: 8 months, 1 week ago

### Gallery description

Prove before you accuse.

Ask before you tell.

Be friends before enemies.

### \*\*CURRENT MISSIONS\*\*

-OPERATION: MIT- [\(link to project\)](#)

-Operation: Dragon- [\(link to project\)](#) Tigereevee stole pictures of dragons from the internet and

# Interviews 11 kids 9 active Scratchers



“Taking somebody else’s project, and then changing a lot of it, and then sharing it and **giving credit** ” Jon, 9



“if Green had actually said in the project notes: ‘this is a remix of Red’s project, full credit goes to him’, the a would consider it a remix.” Jon, 9

“I would like it even more if the person did it [give credit] **on their own accord**, because it would mean that [...] they weren’t trying to copy it, pirate it.”

*Amy, 15*

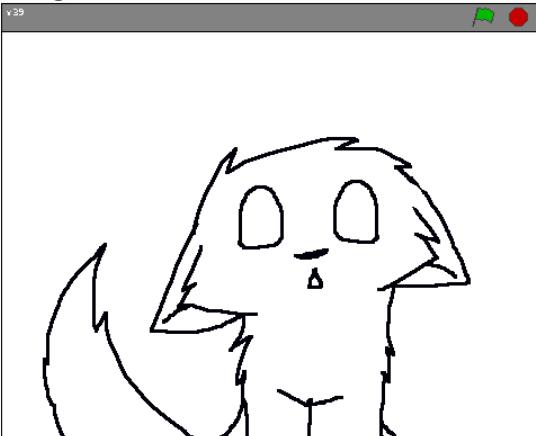


“No, [the “Based on” is not enough], because he [the remixer] didn’t put that, **it always says that**.”

*Jon, 9*

DY  
M 4

## coloring contest~



 [warriorwolfgirl](#) shared it 4 days, 4 hours ago

 Some rights reserved

## Project Notes

add your entry here: ([link to gallery](#))

enter (what I mean by that is remixing and keeping the SAME TITLE. not using it as free line art that you don't have to give credit to me for) please! you have the freedom to do your own style of eyes and draw what the cat is looking at. Be creative! please try to shade and use MORE THAN ONE OR TWO colors. c:

rules:

- follow all rules (XD)
- no coping other peoples entrys
- you may use other programs, but if you do a good entry on scratch that would be better
- dont complain about the results
- dont spam this project. its annoying. seriously.
- don't use this for anything else besides the contest



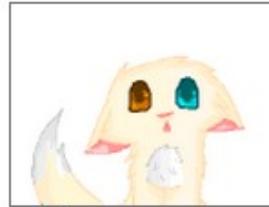
[coloring cont...](#)  
by SHcheetah



[my entry](#)  
by Jojoanne



[coloring cont...](#)  
by Nicofreak



[coloring cont...](#)  
by Mysteh



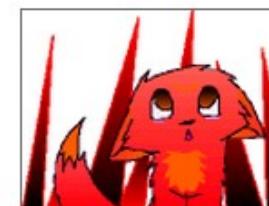
[me entreh - -u-](#)  
by Mysticblaze



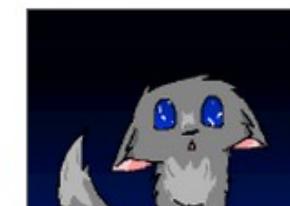
[cat coloring ...](#)  
by welshlizzie



[coloring cont...](#)  
by Wolf-Chan



[coloring cont...](#)  
by alldbs



[coloring cont...](#)  
by Demoncloud



[coloring cont...](#)  
by Zekrom385



[coloring cont...](#)  
by Sneakingfox



[coloring cont...](#)  
by Icewing101



[coloring cont...](#)  
by D4L\_Muffin



[coloring cont...](#)  
by mossfur101



[coloring cont...](#)  
by shuffeluv

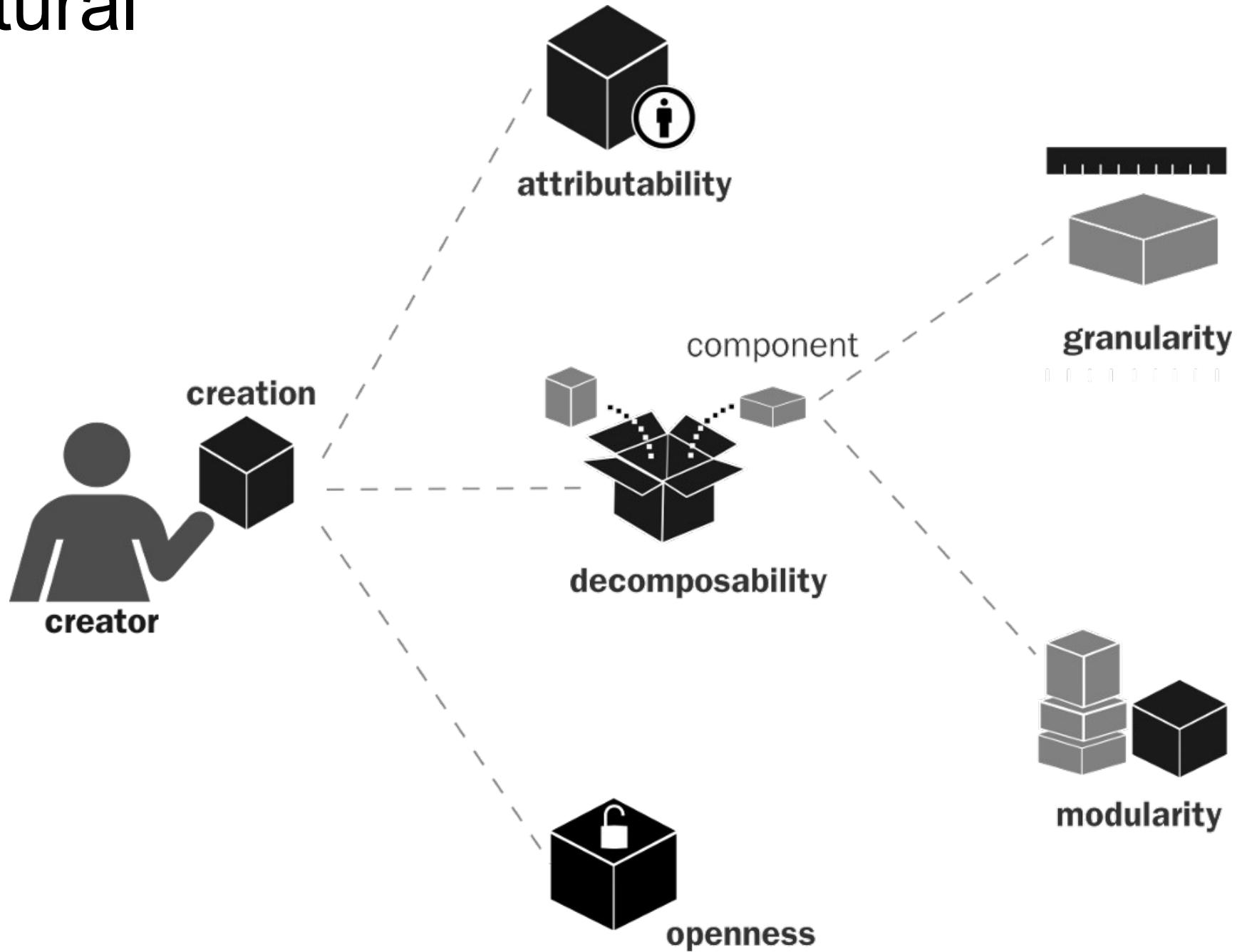
- Socio-technical system
- Large user base
- Log and interview data
- Empirical studies



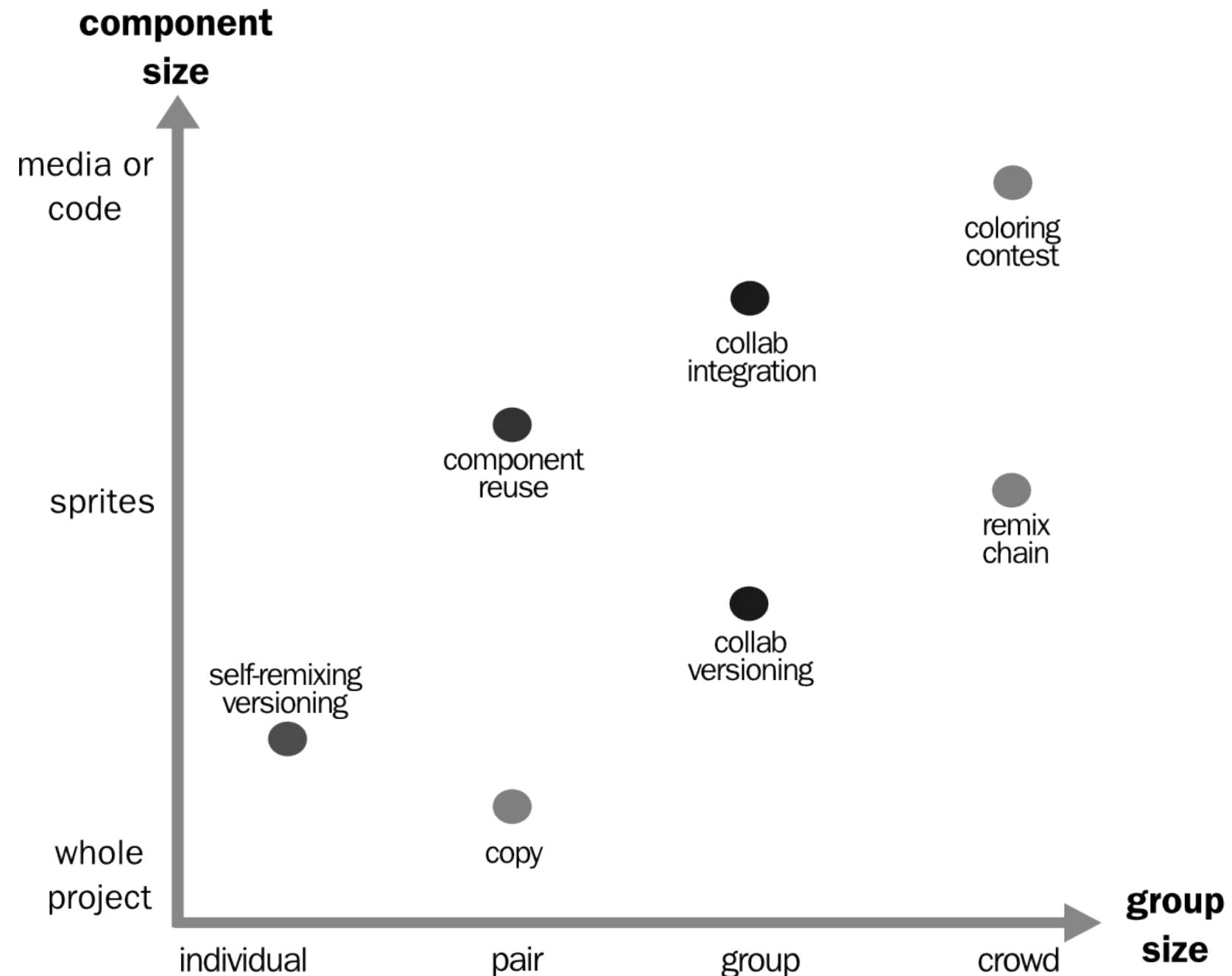
1. Background
2. Research Questions
3. Online Community
4. Previous Work
5. Proposed Work



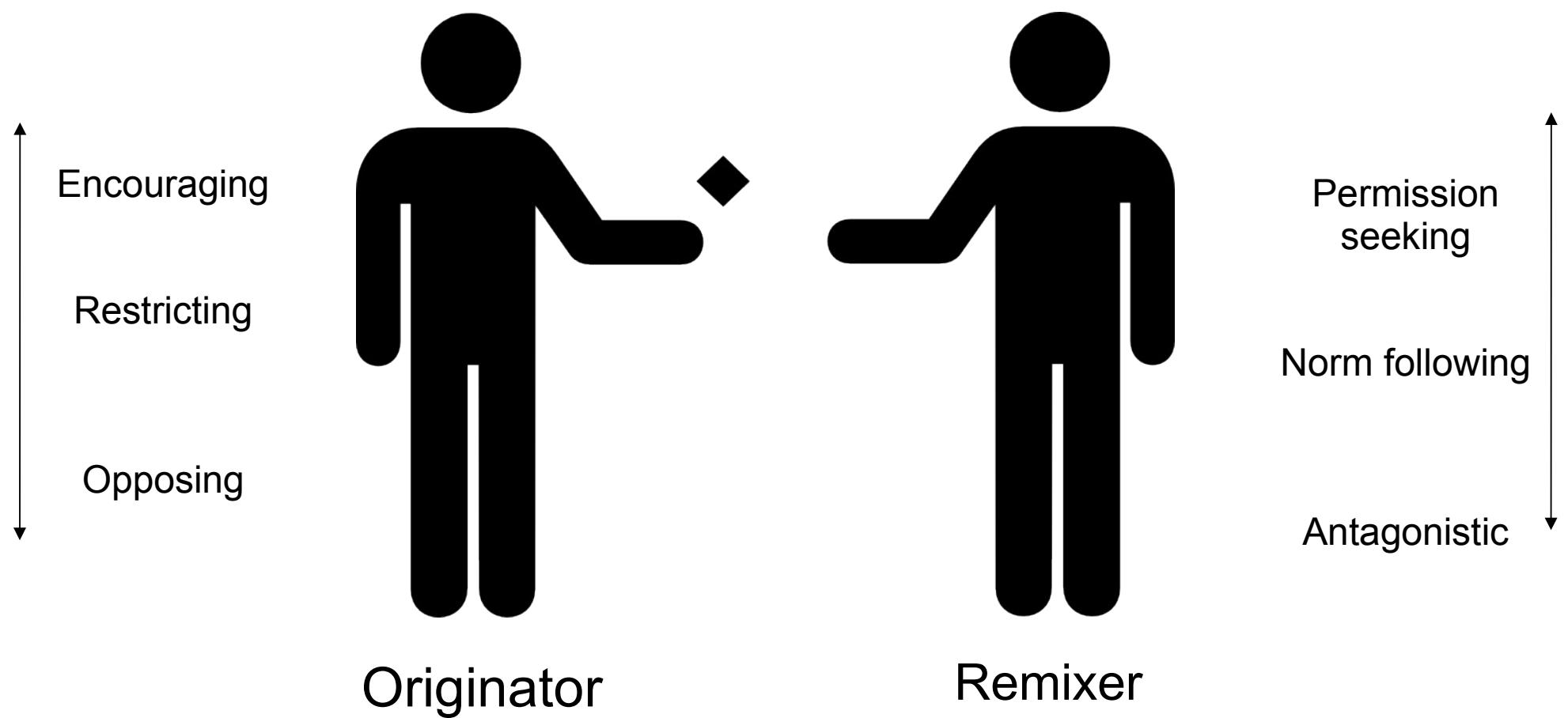
# Structural



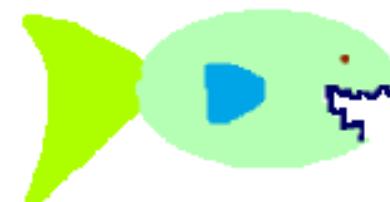
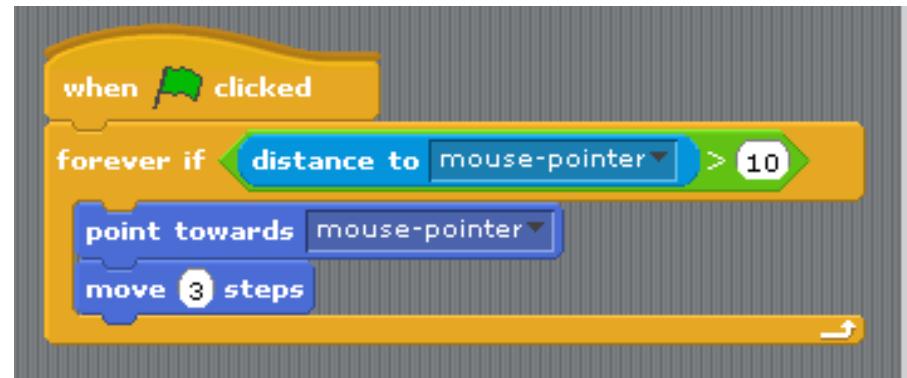
# Functional



# Attitudinal



# modularity



# granularity

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Joren Lauwers

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-   
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-   
[Scratch Art M...](#)  
by goch

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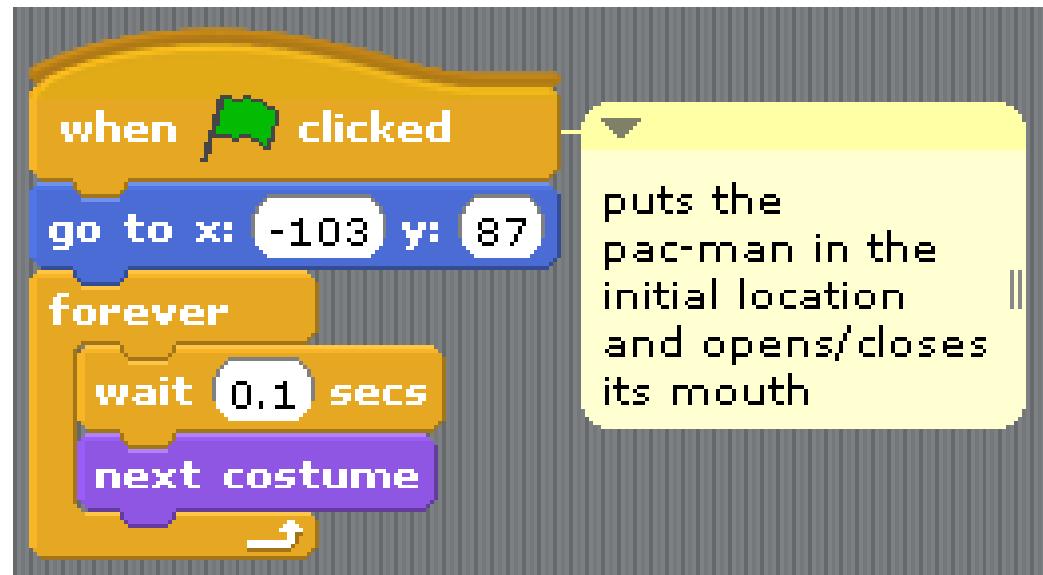
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Click below to learn what you can do on Clutter.

projects

Paul Medlock-Walton

# decomposability



2009-11-26 05:56:33

#1

[Chrischb](#)

Scratcher

Registered: 2008-07-24

Posts: 4834

IP: [125.238.224.27](http://125.238.224.27)

There have been lots and lots of people who support the Locking Downloads button. There have also been lots and lots of people who disagree and support remixing. There has been a decision that the button shall be avoided.

.....  
Yes, you may hate hackers ruining your projects. Well, here's the guide to make your projects confusing!

But because this ruins remixing, we have decided to split this into two parts. The first one tells you how to help your project.

And the second one tells you how to unravel the scripts.

That way, we don't discourage remixing!

We shall now go through the tips... in a series of chapters as usual.

# functional



## What the Community is Remixing

Three examples of community remixes on Scratch:

- Add yourself at...** by [positivelypos...](#): A simple game where a stick figure stands next to a tombstone.
- Add Yourself Re...** by [CosmicProjectz](#): A Mario-themed game where a character jumps over obstacles.
- add yourself ru...** by [bellpig](#): A Mario-themed game featuring a large Goomba enemy.

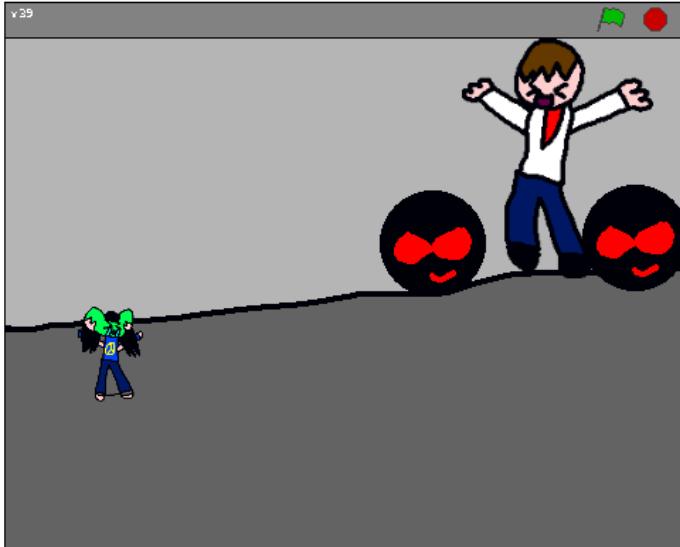
[Add yourself at...](#)  
by [positivelypos...](#)

[Add Yourself Re...](#)  
by [CosmicProjectz](#)

[add yourself ru...](#)  
by [bellpig](#)

(with Hill, B.M.)

### Add yourself getting sued by Viacom



candy0503 shared it 1 year ago

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### Add\_yourself\_getting\_sued\_by\_Viacom[1][1]

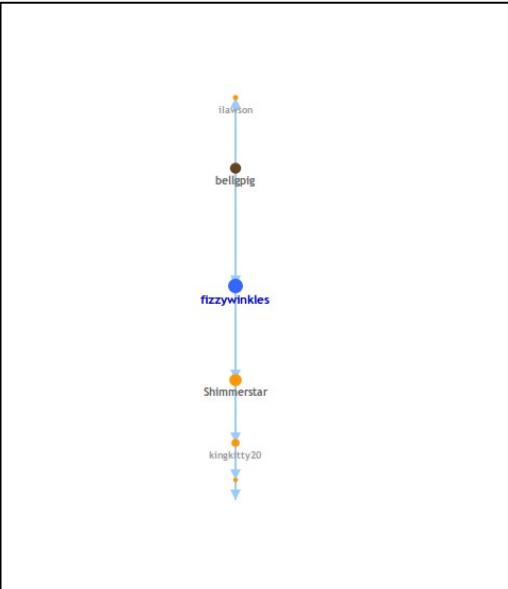
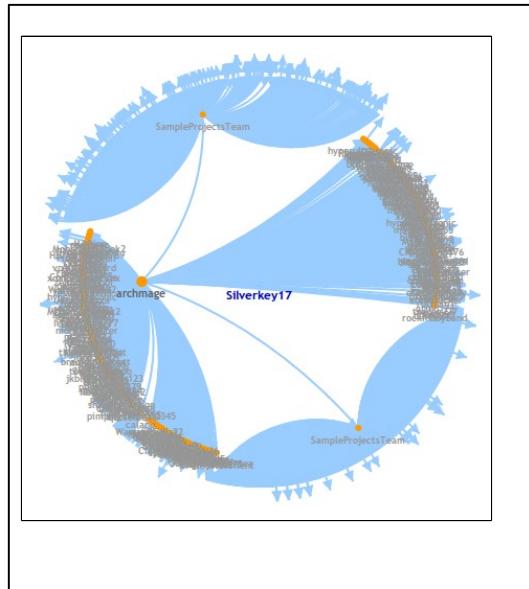


Lotia shared it 1 year ago

Based on [celetapestar's version](#) of candy0503's project

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## Network Structure



# attitudinal



home projects galleries support forums about

Welcome, [REDACTED] | [Logout](#)

You have [35 messages](#)

## Message(s)

Your project [REDACTED] was remixed. Sharing your work is a generous thing to do and a good thing for the Scratch community! [Check out the remix.](#)

Your project [REDACTED] has received a new comment by [REDACTED].

Your comment on the project [REDACTED] has been replied by [REDACTED].

**ccmixter**

DOWNLOAD, SAMPLE, CUT-UP, SHARE.

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Dyeing  
Lazarus  
Start Again  
Walden Pond B...  
Give It Up (S...  
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### Editors' Picks

#### Dyeing

by: Benjamin Orth



Classical music and metal have always had an unlikely affinity, and nobody demonstrates that better than Benjamin Orth remixing Jacinda Espinosa. Combining church organs, guitars, string, and dynamics that move like a Yo-Yo, Benjamin and Jacinda rock us out with grace, pinache, and not a little headbanging.

Admiral Bob

Play

#### Lazarus

by: Jeris



Jeris delivers a simple yet smooth neo-soul groove that serves as an evocative backdrop to Suzi Q. Smith's powerful tale of one woman's emotional struggle with her man's lifestyle.

Clarence Simpson

Play

#### Walden Pond Blues

by: Admiral Bob



Admiral Bob's one-man blues band backs up an insightful Lessig — who's been transported from convention hall to swanky, smoky bar.

Features some of the tastiest guitar work on ccmixer!

snowflake

Play

#### Give it Up (Start Again)

by: snowflake



Stellar Vocals from Snowflake & A Top Notch backing track from Subliminal. This track could easily fit into any Rock/Top 40 rotation. Radio ready with a groove that makes you want to "Give It Up"

J.Lang

Play

(With Jude Yew)

# Q & A





extras

Andrés Monroy-Hernández, Mako Hill, Jazmin Gonzalez-Rivero et al. (2011) **Computers can't Give Credit: How Automatic Attribution Falls Short in an Online Remixing Community.** CHI '11

Jeff V. Nickerson and Andrés Monroy-Hernández (2011). Appropriation and Creativity: User-initiated Contests in Scratch. In Proceedings of the Hawaii International Conference on System Sciences (HICSS '11)

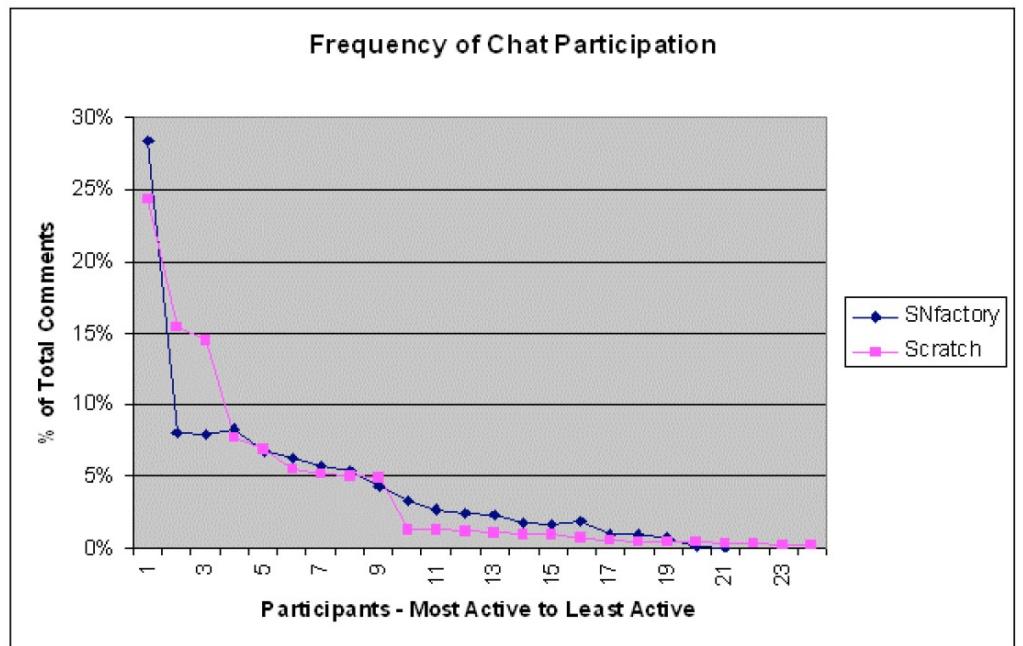
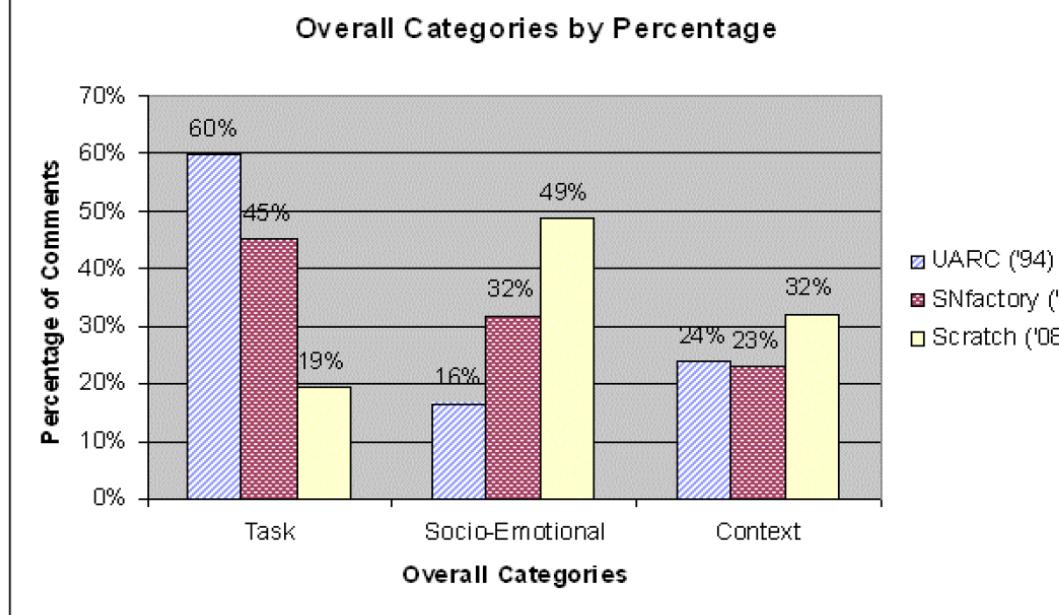
Benjamin Hill, Andrés Monroy-Hernández, Kristina Olson (2010) **Responses to remixing on a social media sharing website.** In International Conference on Weblogs and Social Media.

Mitchel Resnick, John Maloney, Andrés Monroy-Hernández et al. (2009) **Scratch: programming for all**, 60-67. In Communications of the ACM 52 (11).

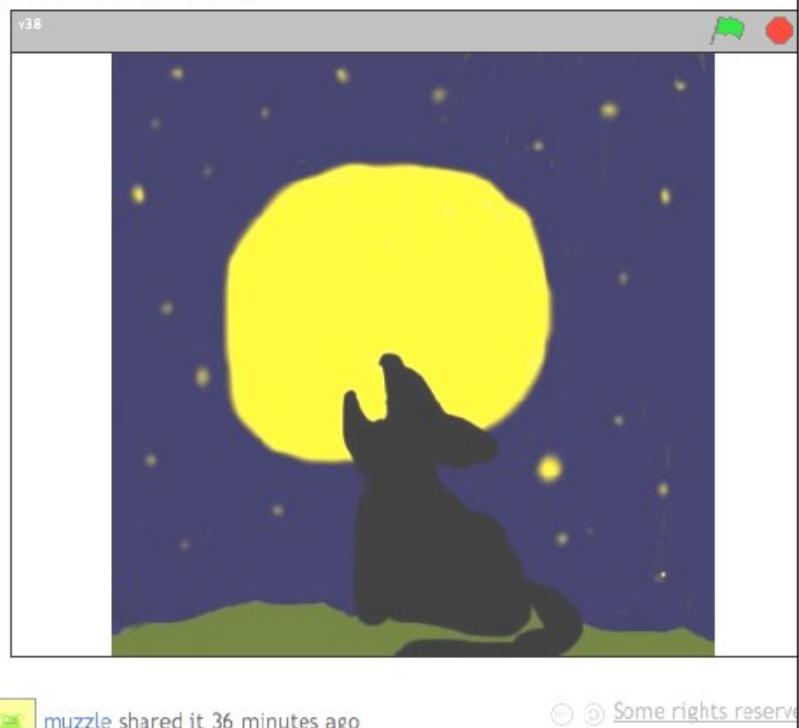
Andrés Monroy-Hernández, Mitchel Resnick (2008) **Empowering kids to create and share programmable media**, 50. In interactions 15 (2).

Tag	Category	Examples
C	Context	issues related to work, but not directly task-related, e.g. organization or scheduling
C:S	Scheduling/ process/ politics	arranging when to meet, how to organize work, group politics
C:T	Technology	e.g. system administration, hardware
C:Q	Questions & Answers	questions about context issues
C:SE	Socio-Emotional	socializing specifically to give context about remote environment, e.g. it's cold here, I'm eating lunch now
T	Task	related directly to the job that needs to get done
T:W	Work	Science (Scratch analogy is game content and design), writing code, technical operations
T:C	Collaborative Decision Making	discussions about how to get the work done
T:Q	Technical Q&A	asking for technical help
SE	Socio-Emotional	socializing, personal discussions
SE:S	Socializing	greetings, personal discussions
SE:W	Work-Related	social comments about the work (not specifically technical)
SE:T	Technical	technical jokes and puns

## communication



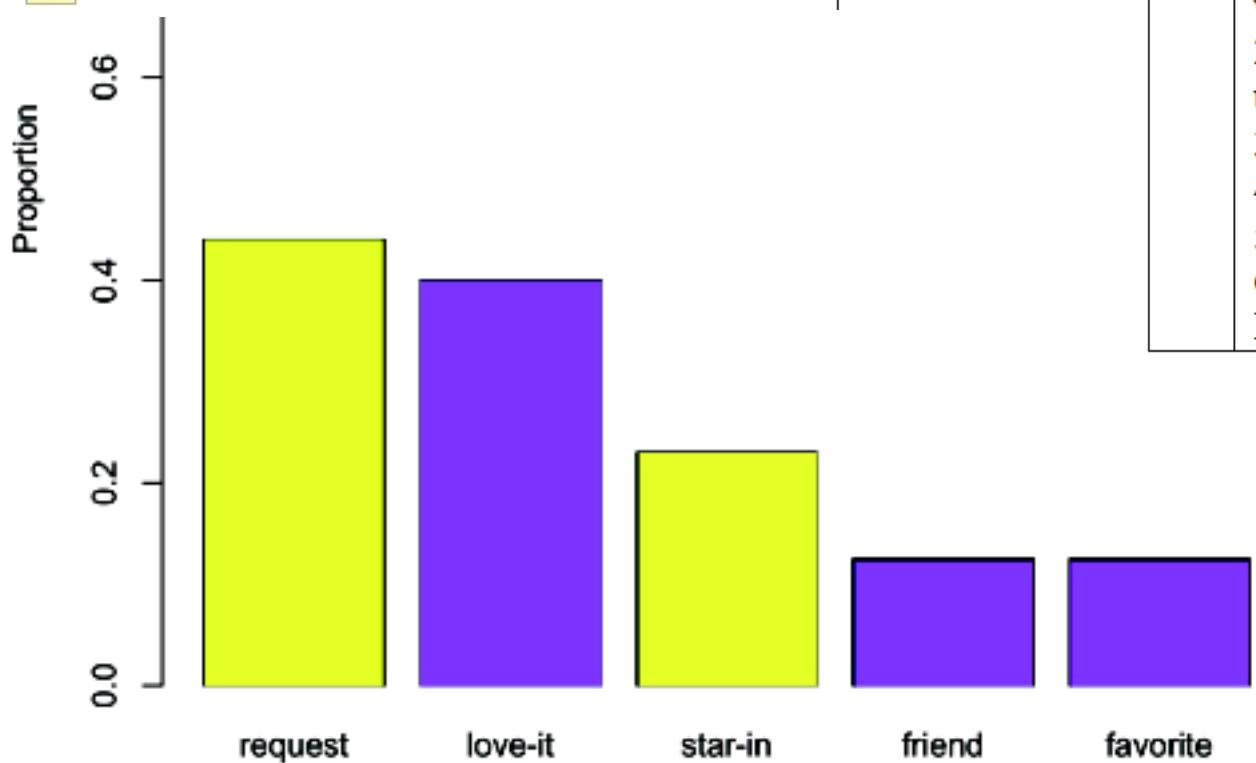
a wolf for luv234!



muzzle

shared it 36 minutes ago

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#	award structure
1	1st: Love all of your projects and 3 short project requests. 2nd: Love 10 of your projects and 1 short project request. 3rd: Love 5 of your projects or 1 short project request
2	1st place: 3 drawings and ill give you love its on 5 of your projects 2nd place: 5 love its 3rd: 2 love its 2 comments
3	1. Get to be in two projects. 2. Easy icon request. 3. An animated request
4	the winner gets put in the next cheez game!
5	1st place-Invisible car, and gas money for a whole year! OMG! :D. 2nd place- Invisible chocolate, and invisible unlimited movie passes! :D. 3rd place- Invisible gift card, and savings bond! 4th place- invisible cloak. 5th place invisible fuzzy slippers :o 6th place-33rd place: PRIDE! :D

Nickerson., Monroy-Hernández (2011) HICSS

1. People just as likely to leave positive comments (21%) as they were to leave a direct or indirect complaint of plagiarism (22%).
2. Project complexity led to more complains of plagiarism
3. Remixing a remix or being a remixer did not imply being more accepting of remixing
4. Similar projects led to more plagiarism accusations

File :1294095758989.jpg-(10 KB, 239x266, Picture-53.jpg)

**Anonymous** 01/03/11(Mon)18:02:3 No.299784071 [view]



ITT: Women laughing alone with salad.

"Women laughing with salad".

256 posts and 148 image replies omitted. Archived from /b/.

>>  **Anonymous** 01/03/11(Mon)18:02:5 No.299784163

File :1294095779273.jpg-(13 KB, 270x374, Picture-105.jpg)



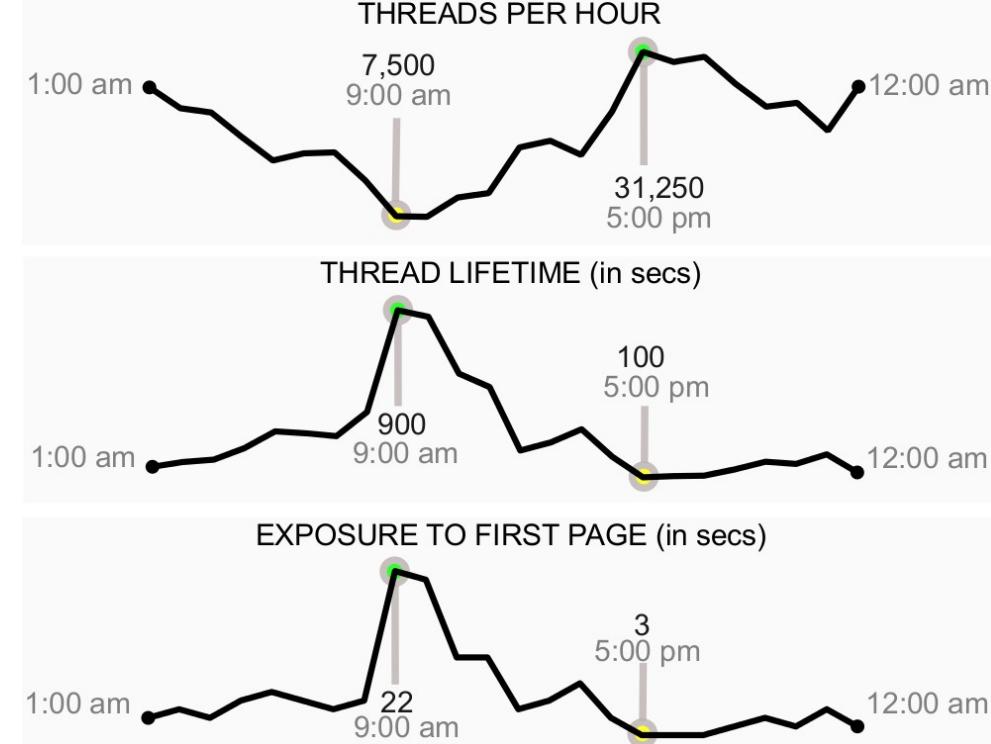
>>  **Anonymous** 01/03/11(Mon)18:03:3 No.299784303

File : [1294095813562.jpg](#)-(24 KB, 228x342, womanpic1001\_228x342.jpg)



>> □ Chinese guy 01/03/11(Mon)18:03:4 No.299784343

# remixing memes



Name	Num. of Posts	% of Posts
Anonymous	5,022,149	90.07%
David	59,320	1.06%
-	14,070	0.25%
OP	13,576	0.24%
(blank)	13,077	0.23%
sage	13,003	0.23%
anonymous	6,150	0.11%
noko	5,727	0.10%

*Table 2:* The most popular post names on /b/ during our two-week sample. Anonymous has over ninety percent of the posts ( $n = 5,576,095$ ).

E-mail	Num. of Posts	% of Posts
(blank)	5,478,573	98.25%
sage	39,725	0.71%
Noko	5,037	0.09%
:stopsound:	3,377	0.06%
:soundoff:	1,627	0.02%

**Table 3:** The most common emails on /b/ during our two-week sample. Most posts leave the e-mail field blank ( $n = 5,576,095$ ).