Social Media Platforms for Education and Science Communication

Observations about different audience-specific communication styles on Twitter, Facebook,

and YouTube

Sarah Winnicki @skwinnicki skwinnicki@ksu.edu
Kansas State University



Why communicate science/conservation?

BACK TO LOCAL NEWS

AUDUBON SPONSORS BIRDING FIELD TRIP

May 21, 2019 at 5:00 am |

Article

Flathead Audubon will be sponsoring a birding field trip Saturday, May 25, from 7 a.m. until noon in Glacier National Park with wildlife biologist Steve Gniadek.

Conservation

Rapidly Declining Songbird Won't See Federal Protections Anytime Soon

The U.S. Fish and Wildlife Service has delayed its decision on the Saltmarsh Sparrow's endangered status to 2023. Scientists say that might be too late.









May 24, 2019





Science

Is It Okay to Remove Cowbird Eggs From Host Nests?

It can be tempting to interfere with these brood parasites. But there are many reasons—legal and behavioral—to leave tampering to the pros.

Science

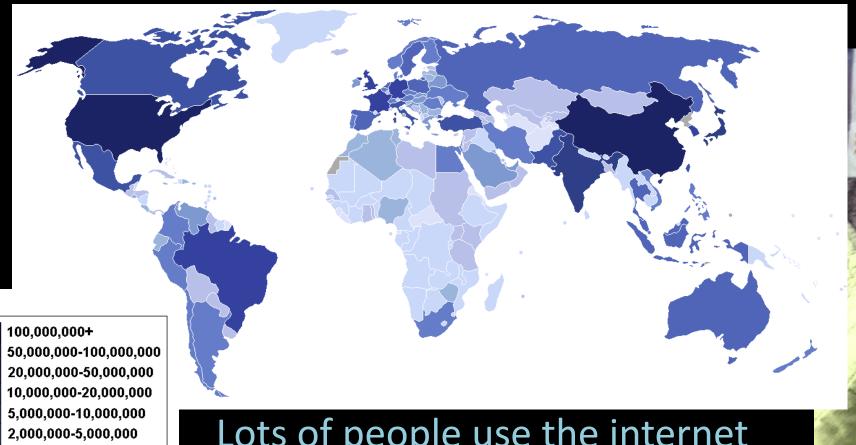
Exhausted Birds Become Lunch Meat for Tiger Sharks in the Gulf of Mexico

New research shows that these apex predators wait for food to fall out of the sky during migration.





Why online audiences?



1,000,000-2,000,000

500,000-1,000,000 100,000-500,000 10,000-100,000

-10,000

Lots of people use the internet around the world and you can do it in the comfort of your home!



AUDUBON SOCIETY OF OHIO

The Cincinnati Chapter of National Au

Home About Us → Conservation Outdoors → Calendar Community → Newsletter

Conservation

A critical part of the mission of the Audubon Society of Ohio is to promote conservation values. We particularly emphasize issues of local concern in the Cincinnati area.

Please check back here often to keep abreast of what's happening in our area.

ASO Opposes Development in Burnet Woods

The Audubon Society of Ohio has adopted the following open letter, stating our position in opposition to any development of Burnet Woods: To Whom It May Concern, The Board of Directors of the Audubon Society of Ohio (Cincinnati Audubon) has approved an official position statement opposing the development of portions of the Cincinnati Park's 90 Read More . . .

Clean Power Plan

Personal/organization websites are great...





HOME

CV

ESEARCH

SCIENCE COMMUNICATION & OUTREACH

PHOTOGRAPHY

CONTACT

I currently conduct research on the beautiful <u>Konza Prairie Biological Station</u> (<u>NE Kansas, USA</u>) as a member of the <u>Boyle Laboratory</u>. I have worked on Konza since 2014, studying the abundant prairie songbirds at the site (especially <u>Grasshopper Sparrows</u>).



Ongoing Research:

The role of brood parasitism in shaping nestling growth and development strategies

(fondly known on Twitter as project #PrairieBabies)

In my master's research, I seek to identify the effect(s) of <u>Brown-headed</u>
<u>Cowbird (Molothrus ater)</u> <u>brood parasitism</u> on the growth and development of
nestlings of three grassland-obligate host species: <u>Grasshopper Sparrow</u>
(Ammodramus savannarum), Dickcissel (Spiza americana), and Eastern

To interact with <u>project #PrairieBabies</u> on Twitter, click this Twitter icon:



Project #PrairieBabies Twitter Updates



@skwinnicki

Sat Jun 01 2019

@austinrspence Definitely NOT! Naked



AUDUBON SOCIETY OF

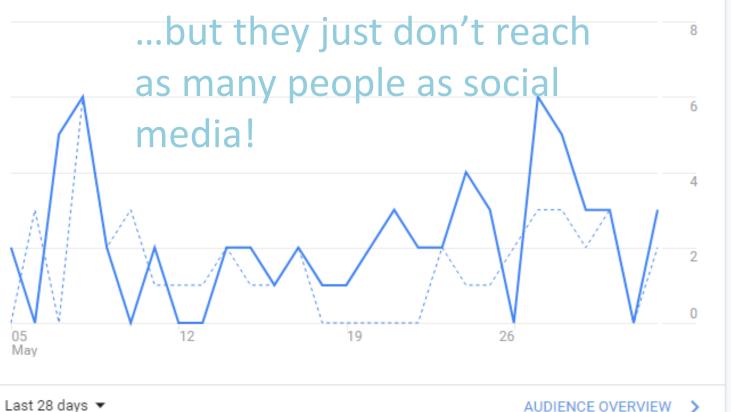


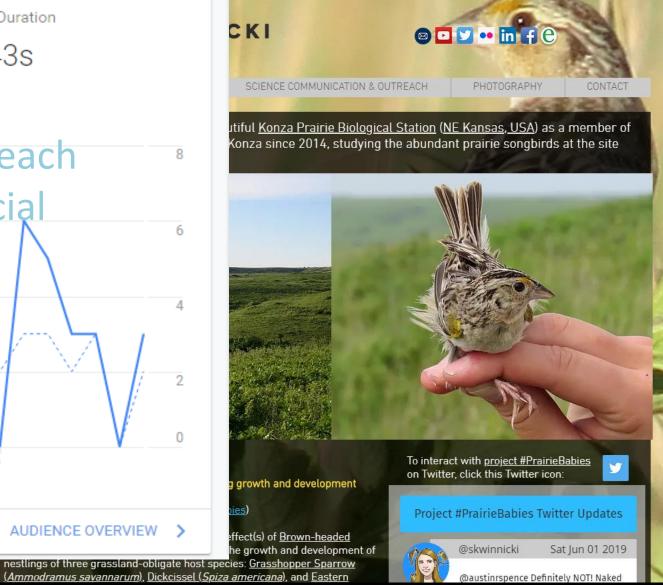
Google Analytics Home

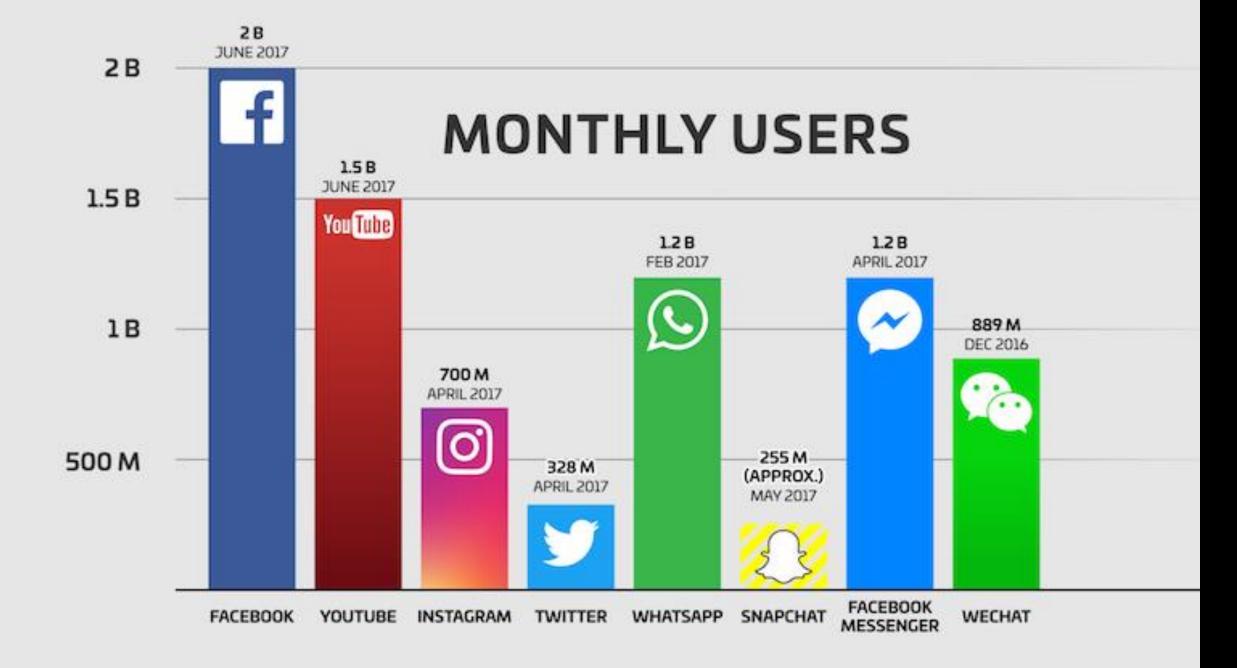
 Users
 Sessions
 Bounce Rate
 Session Duration

 49
 65
 56.92%
 1m 43s

 †63.3%
 †38.3%
 †11.5%
 †2%

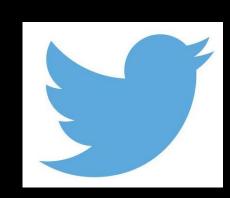






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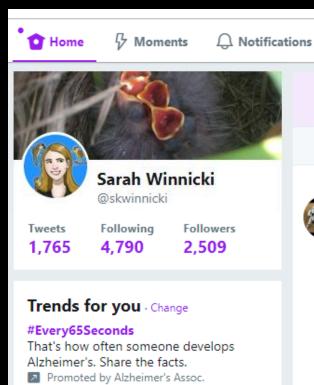






Twitter

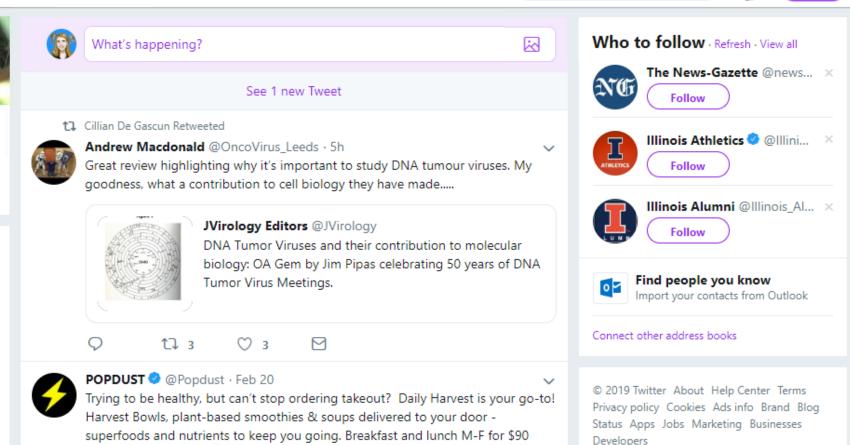
Messages





#GameOfThrones 🛢

The trailer for the final season of Game of Thrones is here



Search Twitter



The Jupiter Girl and 3 others liked



peeeeeent @ @RyanFMandelbaum · Mar 19

thank you so much to @uh_yeah_no for directing me to this 2014 passage on theranos where elizabeth holmes says "a chemistry is performed"

containers of blood are placed. What exactly happens in the machines is treated as a state secret, and Holmes's description of the process was comically vague: "A chemistry is performed so that a chemical reaction occurs and generates a signal from the chemical interaction with the sample, which is translated into a result, which is then reviewed by certified laboratory personnel." She added that, thanks to "miniaturization and automation, we are able to handle these tiny samples."

,) 16

6

€7 52

 \odot



Show this thread



Jordan E. Rutter, M.Sc.





Gather round tweeps. A news article just came across my desk & I can't ignore it.....so I need to #ornithology scicomm about it as I share & advocate on behalf of @VulturesofDC & to be honest, vultures everywhere.

Bottom line - this is MISLEADING





Jordan E. Rutter, M.Sc. @JERutter · Mar 19

Tweet your reply

As an ornithologist (someone that studies birds) who has a master's degree and



Tweets **1,765**

Following 4,790

Followers 2,509

Likes 15.7K Lists 12

Moments

0





Scientists & Reseachers A public list by John S. Mead Members Subscribers 686 17 Unsubscribe Tweets > List members > List subscribers >

Tweets



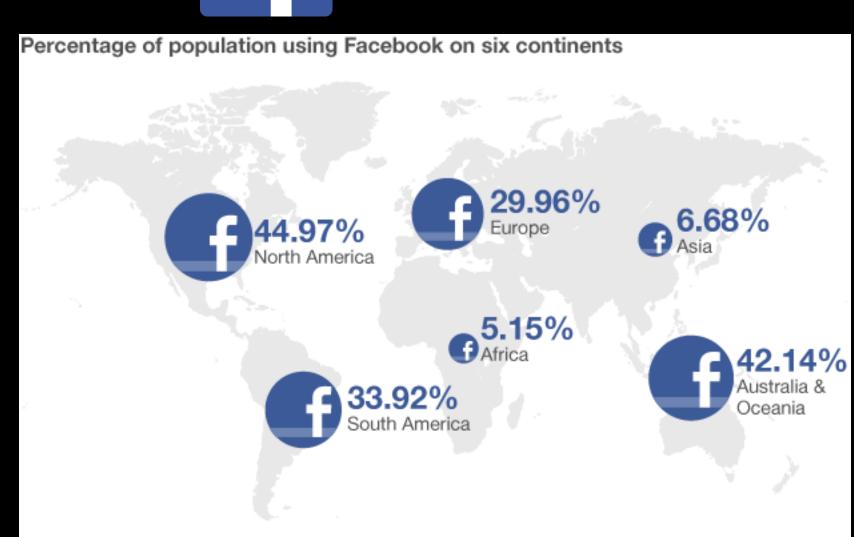
Titus Seilheimer @ Once Upon A Time,



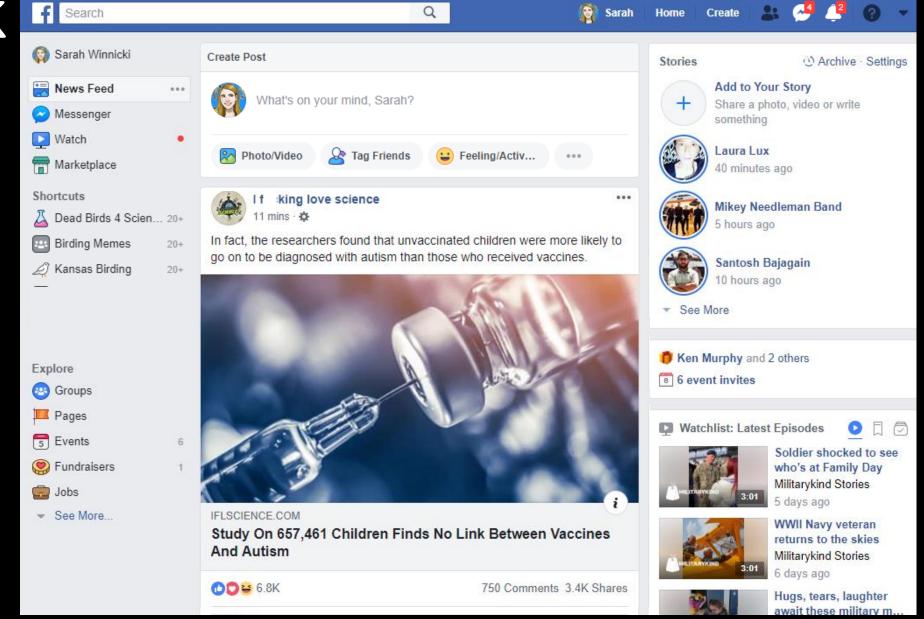
Facebook

Source: Socialbakers.com

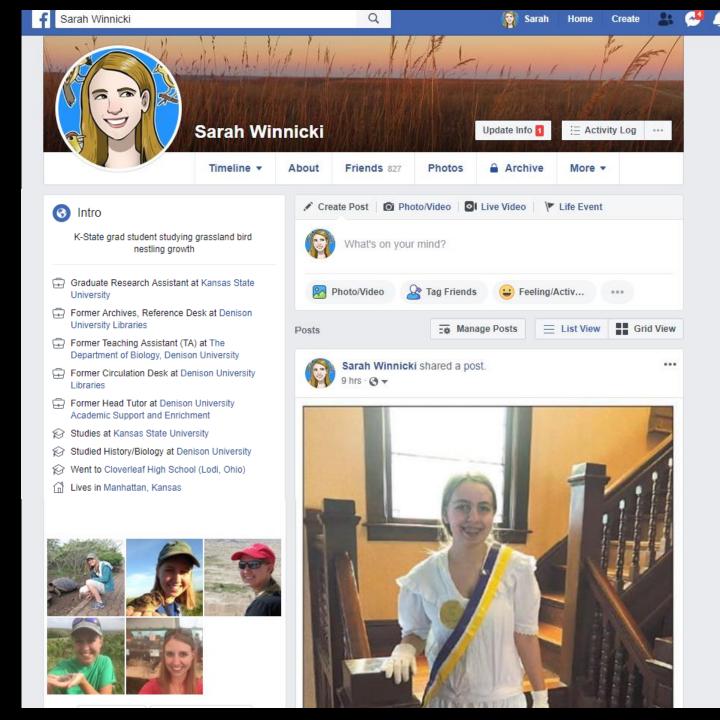




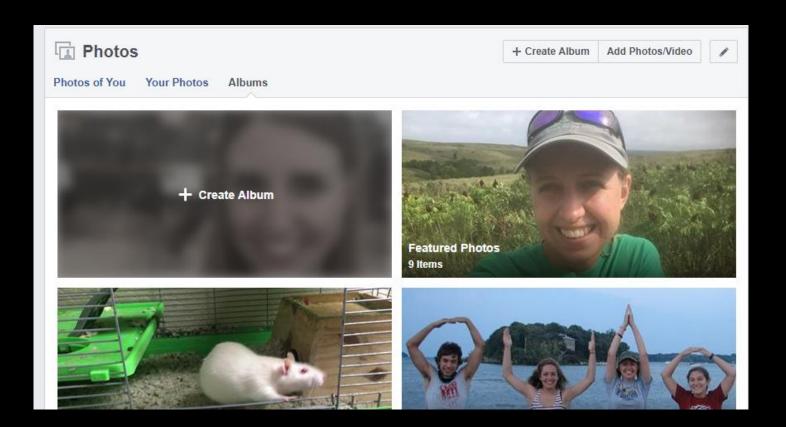
Facebook Fisearch

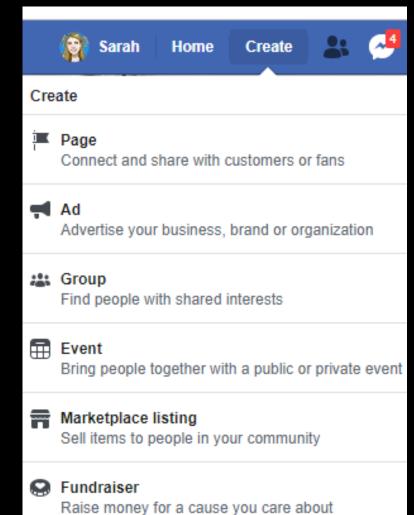


Facebook



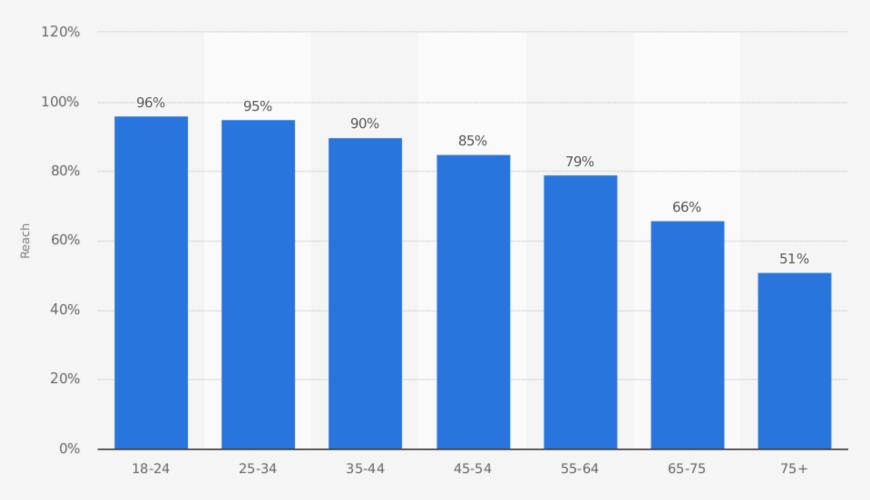
Facebook





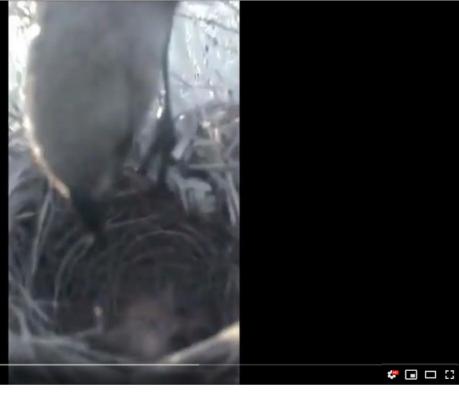
YouTube





YouTube

Search



Best predation events compiled

→ → → 0:01 / 1:05

101 views



EDIT VIDEO

Sarah Winnicki Published on Sep 20, 2018

A short compilation of predation events for Twitter SHOW MORE

0 Comments = SORT BY

Add a public comment..

Nest Camera Predation Videos

Sarah Winnicki - 1 / 71





Best predation events compiled Sarah Winnicki



All predation events 2017-2018



Non-snake Nest Cam compilation Sarah Winnicki



Snake attack compilation 2017-



Sarah Winnicki

Snake attacks 2017



Snake Attacks (set to "Bodies" by Drowning Pool)

Sarah Winnicki

Chake predation compilation



Top 10 Hardest Roles in Musicals

MsMojo 🗇 Recommended for you



Why 'Michael Cohen Is A Liar' Is

The Late Show with Stephen Colb... Recommended for you



COHEN'S TESTIMONY

The Californians: Karina Returns - SNL

Saturday Night Live @



Recommended for you

I Tried Wedding Dresses From Safiya Nygaard 🕏



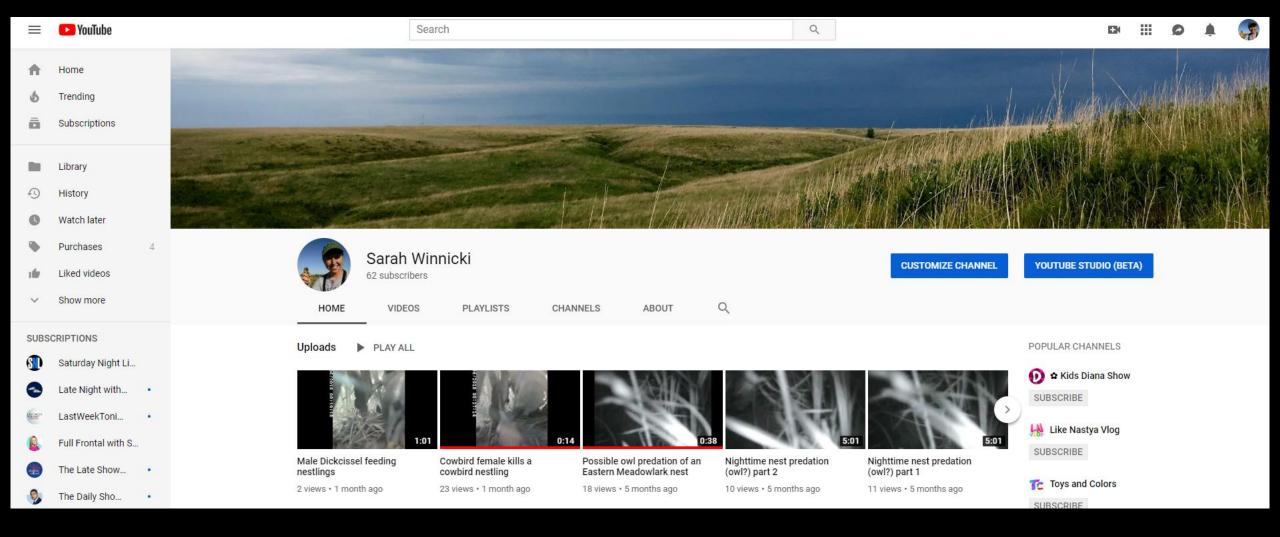
Topher Grace on Playing David Duke in BlacKkKlansman

Late Night with Seth Meyers 🗇 Recommended for you



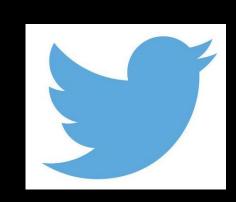
30 Rock - Life Advice From Jack

YouTube



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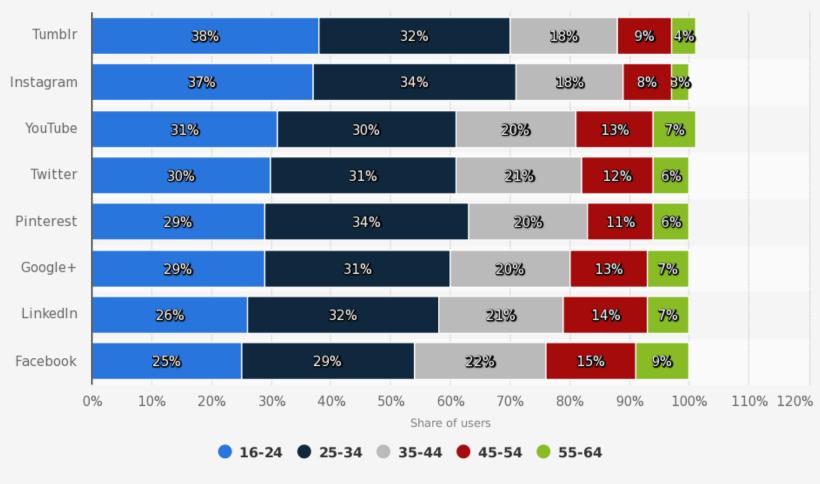


What do you want to say?

- -Think critically about intended audience
- -Make it real and relatable (inspiration can be real!)
- -keep it simple— what will they remember in 7 days?
- -Avoid jargon (i.e. "baby bird" instead of "nestling")
- -will they be able to find it again if necessary?

Who is the intended audience?

Age distribution of active social media users worldwide as of 3rd quarter 2014, by platform



Views A 25.4K Watch time (minutes)

76.7K

Subscribers 4

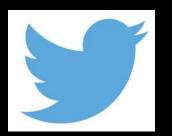
Additional Information:

Source

GlobalWebIndex © Statista 2018

Worldwide: GlobalWebIndex: 3rd quarter 2014: 16-64 years: Active social network and active app users, excluding

Think about how many people you're connected with on each site:









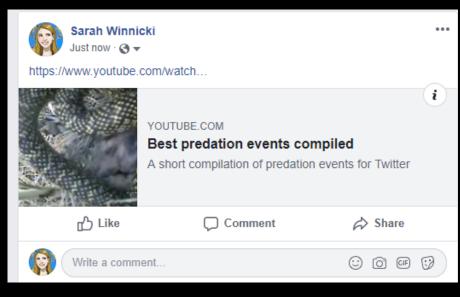


Don't share between sites!

and she delivered an exceptional keynote presentation at the 12th Annual Ohio Young Birders Conference on her research work with baby birds. We hope you'll follow along with her!







Each site has different target audiences/styles, so uploading media individually is best!



Share articles and websites with links







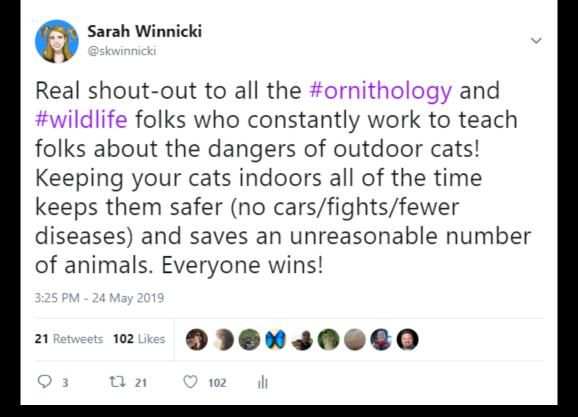
Sarah Winnicki Published on Apr 20, 2017

Henslow's Sparrow in the tallgrass prairie south of Manhattan, Kansas.

Video taken on a Canon Zoom lens 50X IS, stabilized with Adobe Premier Pro
For more information check out my website at www.sarahwinnicki.com

SHOW MORE

Does media matter?



Impressions	6,257
Total engagements	159
Likes	102
Retweets	21
Profile clicks	19
Detail expands	13
Replies	3
Hashtag clicks	1

A message without media gets a few hundred engagements....

Does media matter?

Impressions	65,870
Total engagements	6,861
Media engagements	5,186
Likes	952
Detail expands	286
Link clicks	184
Retweets	121
Profile clicks	106
Replies	25
Follows	1

The same message with cat photos gets 10x more!



It is safest for your cat (and for wild animals) if you *always* keep them inside! Cats are ferocious predators and decimate wildlife.

With that in mind, the fact that my fluffy cat falls asleep snuggling my rat is...almost embarrassing for her if I'm being honest.



1:43 AM - 19 May 2019

121 Retweets 952 Likes

















ılı

Media type/size

Short and sweet? Try Twitter
Paragraph of info? Facebook
Photo album? Facebook
Stand-alone video? YouTube

Facebook will truncate your text, so put the punchline up front! Like a newspaper article



Photo Editing

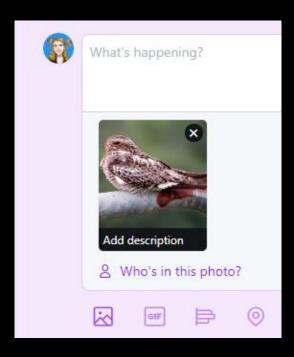
Watch cropping and contrast!







Photo captioning



Use Twitter's photo caption option to add audio captions for the visually impaired!

Describe this photo for the visually impaired

Photo captioning

Edit Photo



The automatically generated alternative text for this photo is:

bird and outdoor



Tag

Add alternative text that describes the contents of the photo for people with visual impairments.



Crop

Override generated alt text

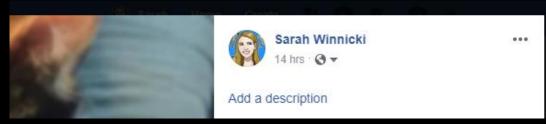
Aa Text

Alt text

⊕
 Stickers

Facebook has three different options for captions!





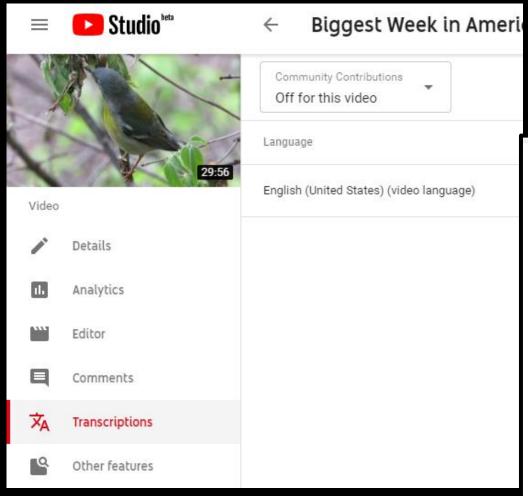
Upload clear, highcontrast videos whenever possible

Videos

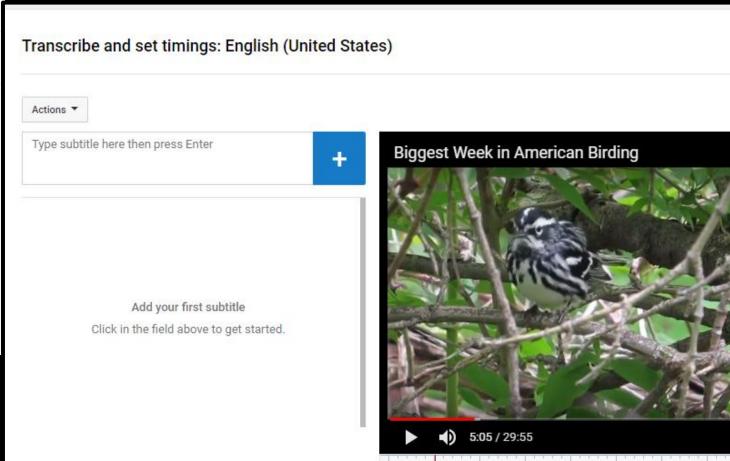




Captioning



Make captions for the audio-impaired (folks who don't understand quick English, etc.)! Put the video on YouTube, use the transcriptions options, add closed captioning, download the video back off of YouTube, and upload it to FB or Twitter. A bit of a hassle, but worth it to engage with a larger audience!

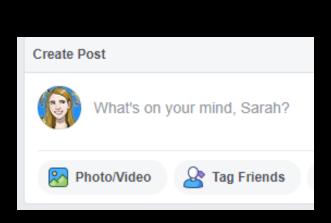


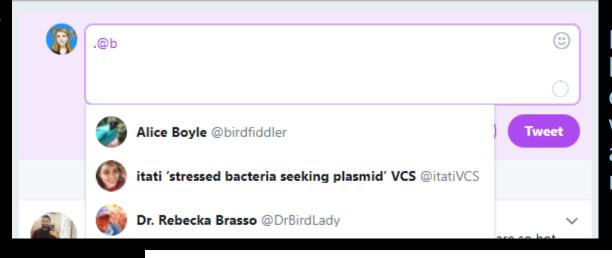
5:06 5:07 5:08 5:09 5:10

Subject/People tagging

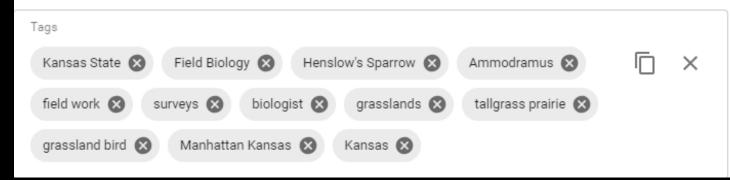
- Link and tag people! Share the love
- What key words will your audience use to find

your work?





Put a character before a handle at the beginning of a tweet or Twitter will think it is a "reply" and it won't make it on main Twitter



Editing

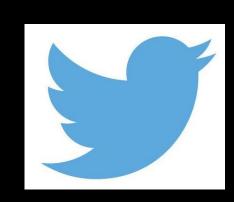




YouTube and Facebook allow folks to edit their posts and comments, so be aware that they can change their message (and yours!). You can't edit on Twitter, which is good (no one can twist your words) but also bad (typos are forever!)

Outline

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Drive Engagement: Hashtags

- -Know community hashtags (i.e. #SciComm, #Rstats, #PhDChat)
- -your hashtag: short, descriptive, memorable, searchable, explained somewhere
- -not case sensitive, so capitalize words (#PrairieBabies vs. #prairiebabies)
- -avoid unnecessary abbreviations, offensive words (#ChasingDICKs)



Drive Interaction: Polls



Gaius tweets progress.

Following

 \vee

Good morning from sunny Tucson!

We'll be talking about some of my indentities today and how that's affected my life in #science.

Where do you see yourself on the topic of inclusion?

- Need to learn alot more
- Got the basics down
- I teach it
- See Results/other

Add polls with a "see results" option to engage everyone!





Gaius tweets progress.

@SfPRocur

Following

Good morning from sunny Tucson!

We'll be talking about some of my indentities today and how that's affected my life in #science.

Where do you see yourself on the topic of inclusion?

50% Need to learn alot more

17% Got the basics down

0% I teach it

33% See Results/other ②

6 votes • 9 hours left

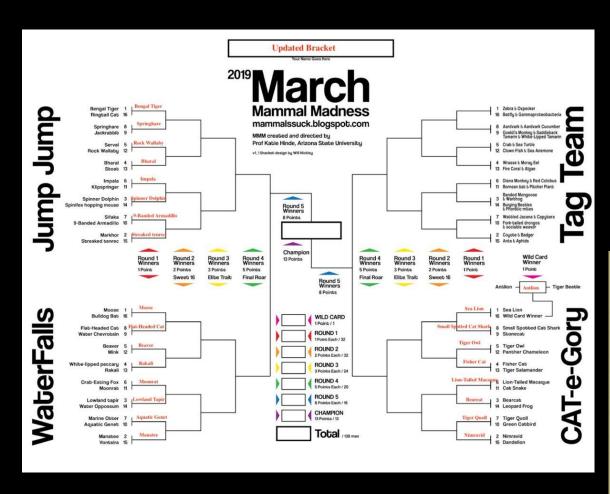
Drive Interaction: Games





Build engagement by doing a regular game with a unique hashtag! The real champion of this is March Mammal Madness, which engages millions (teaching them about conservation!) every March

March Mammal Madness





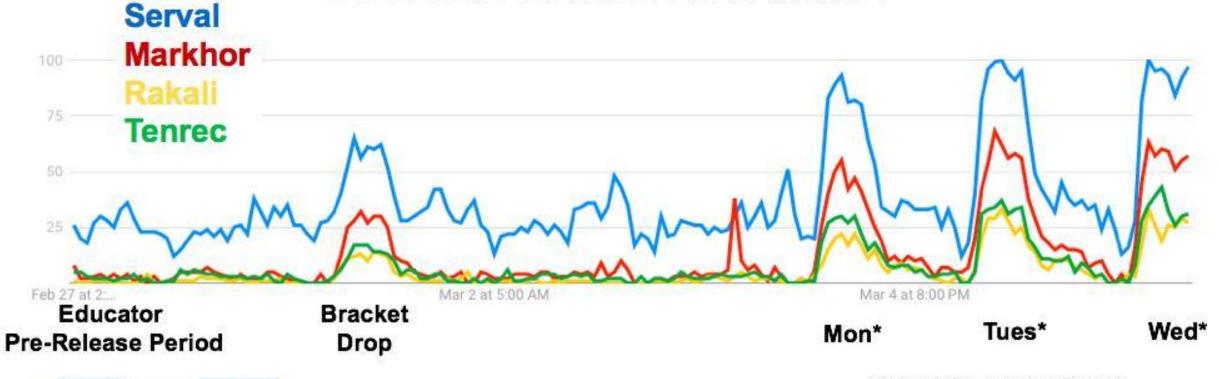
Beleaf in its power.

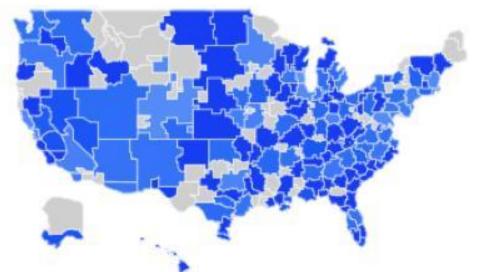
Thousands tweet about MMM every day in March, and this actually led to an increase in Google searches for rare mammals!

Seed the truth.

TWFFTS REACH IMPRESSIONS TOTAL FAVES TIMFFRAME TOTAL RT'S 5,885,109 2795 554,323 26,578 1 day 5,538

GOOGLE SEARCH ACTIVITY





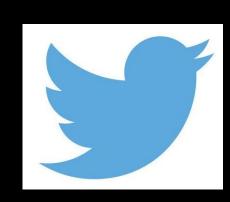
*SCHOOL DAY HOURS 7:00-3:00

Related Queries:

tiger beetle, rock wallaby facts, stoat facts, springhare facts, rock wallaby habitat, water opossum, aardvark, antlion, stonecat, lowland tapir, trophic level, jackrabbit, spinner dolphin, 9-banded armadillo

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Longevity

- -how long does a message stay relevant?
- -Twitter (1 day) <FB (5 days) <YouTube (forever??)

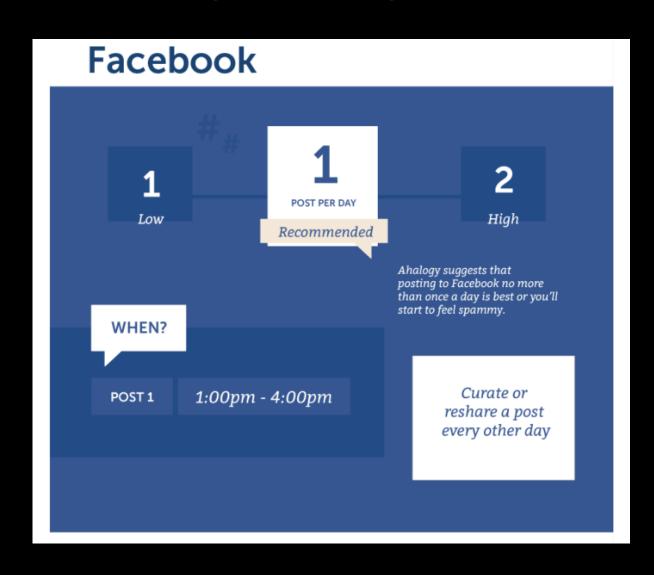
500 million tweets

Number of tweets per day 2016. Every second, on average, around **6,000 tweets** are tweeted on Twitter, which corresponds to over **350,000 tweets** sent per minute, **500 million tweets** per day and around **200 billion tweets** per year. On average, around **6,000 tweets** are tweeted on Twitter every second.

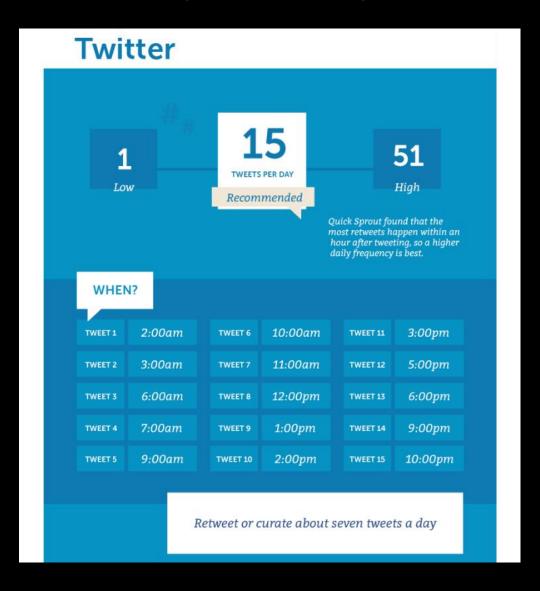
5 billion videos

The total number of people who use YouTube – 1,300,000,000. **300** hours of video are uploaded to YouTube every minute! Almost **5 billion videos** are watched on Youtube every single day. In an average month, 8 out of 10 18-49 year-olds watch YouTube. Jan 5, 2019

Post Frequency: Facebook



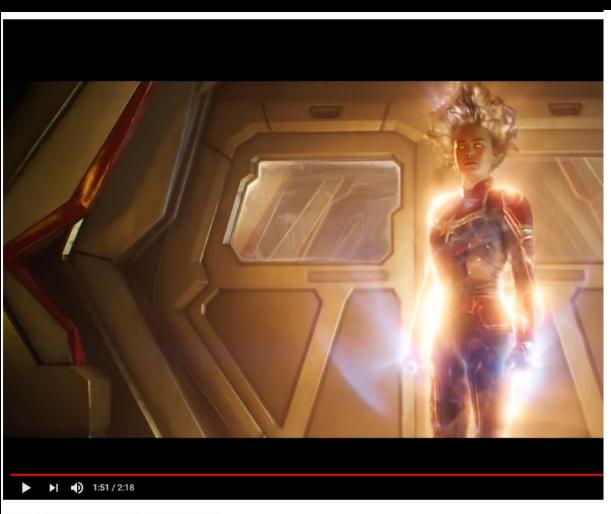
Post Frequency: Twitter



Post Frequency: YouTube

Entertainment videos: 1/hr-day

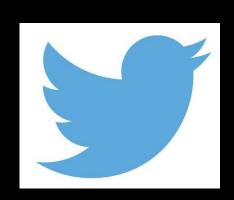
Educational videos: 1/day-week





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Success?

Look at likes, shares/retweets/ analytics

Impressions	2,102
Total engagements	101
Likes	40
Media engagements	28
Retweets	13
Profile clicks	8
Hashtag clicks	5
Link clicks	3
Replies	2
Detail expands	2
Detail expands	



Success: Twitter





Twitter has a built-in analytic system, or use SocialBearing to learn more than you ever needed about your social media reach

SocialBearing

Created on: 5/7/2014

TUQI Score: 2.98

Website: sarahwinnicki.com

Location: Manhattan, KS

Tweets: 1765

Tweets/day: 1

Followers: 2509
Following: 4790
Frnd/Fllw ratio: 0.52
Twt/Fllw ratio: 1.42

Favourited: 15742

In lists: 41

Last tweet: 23h ago

Last tweet via: Twitter for iPhone

Language: 🛨 English

@skwinnicki on Twitter

Sort tweets by...



200

120 days

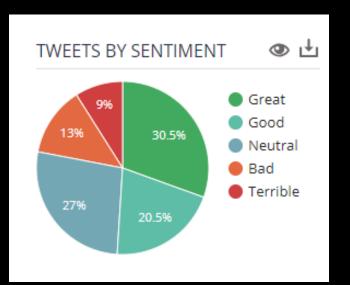
TIMEFRAME

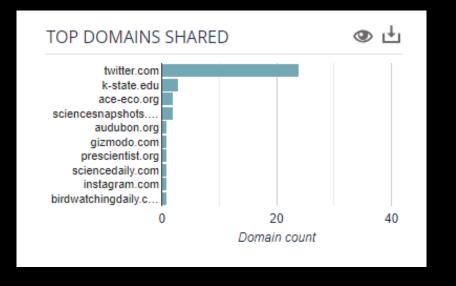
REACH

IMPRESSIONS

2,589 301,160

LOAD MORE

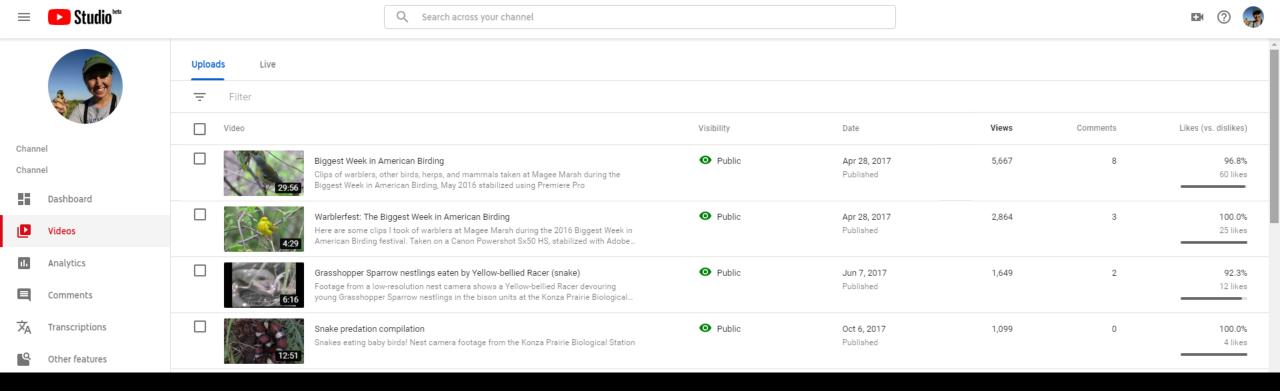




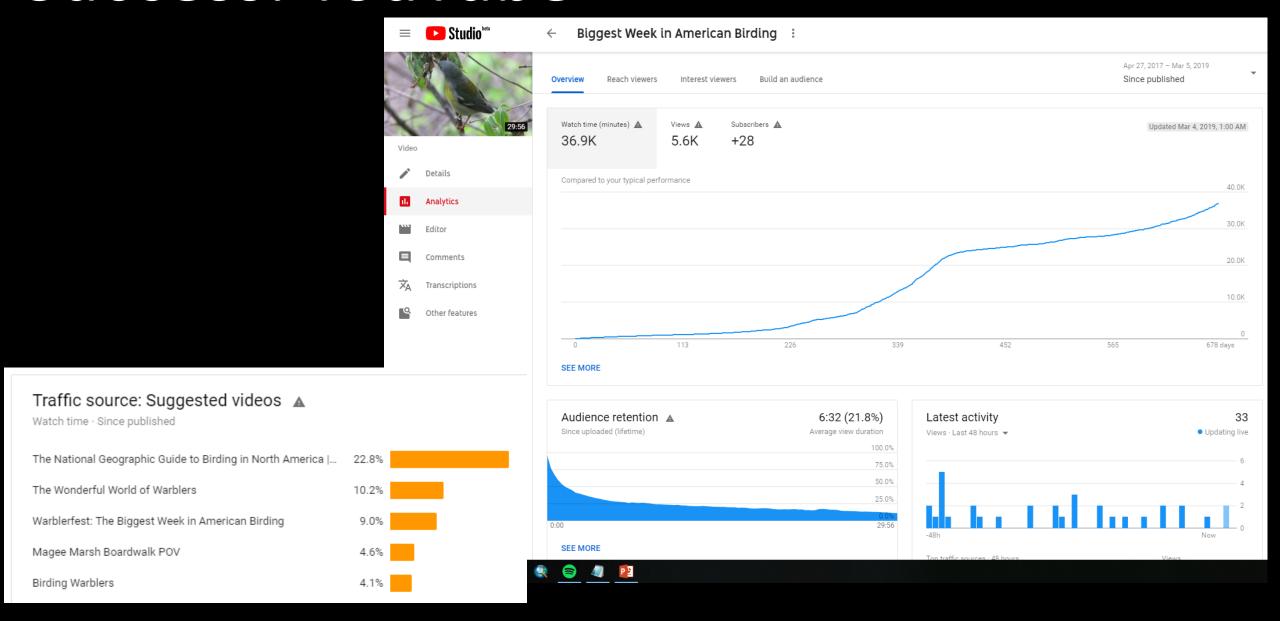


Success: YouTube

YouTube's built-in analytics allow you to see how many people are watching your videos, how long they're watching it, where they found it, etc.



Success: YouTube



Success?

All of these articles started as Tweets! Then reporters contacted us....



ANIMAL ECOLOGY IN FOCUS

READ THE CURRENT ISSUE

News & thought-provoking discussion provided by the Journal of Animal Ecology



Little Brown Job

A little brown job with an odd song, the Grasshopper Sparrow breeds on prairies and in weedy pastures across much of the ABA Area. This article takes an in-depth look at the breeding ecology and management needs of the species. Allegheny County, Pennsylvania; May 2013. Photo by @ Geoff Malosh.

an effort to deepen my knowledge about sparrows, I've embarked on a creative writing project, a series of essays investigating the lives of various

The project has led me to the Flint Hills of eastern Kansas.

Sparrows and the Land

Zoom in on the landscape, focus on a single tall blade of grass, and you might find a sparrow perched thereon, its head thrown back at a sharp angle as it releases a buzzy song. The bird is decorated in fine patterns of gray and brown; a sliver of yellow traces the upper edge of either

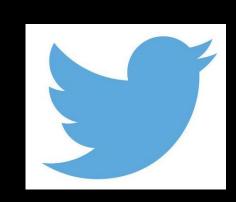
wing. This is a Grasshopper Sparrow. A member of the genus Ammodramus, this species has a characteristically flat forehead, stumpy neck, and short tail. Although grasshoppers are among its primary prey, the sparrow derives its name from the hissing, insectlike quality of its voice and not from its food source.

The range of the Grasshopper Sparrow stretches across much of the contiguous U.S. in summer, with wintering and resident populations along the southern edge, extending into Mexico. An extensive range, however, is not necessarily an indicator of a species' health. Grasshopper Sparrows are what biologists call habi-



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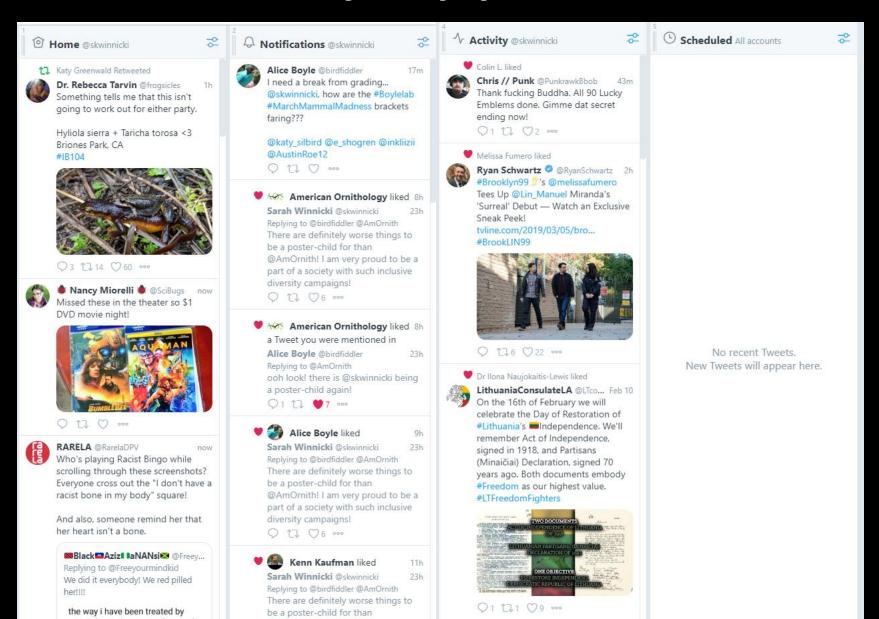


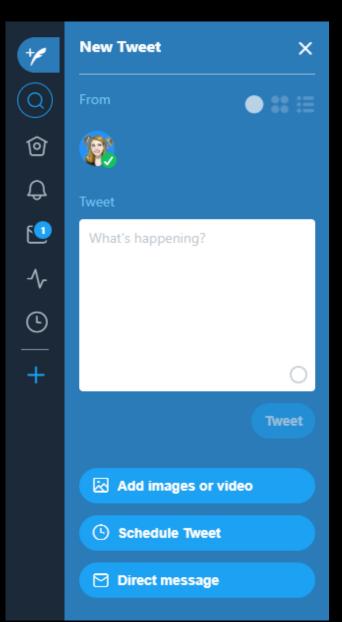




Third-Party Apps: TweetDeck

Schedule tweets!

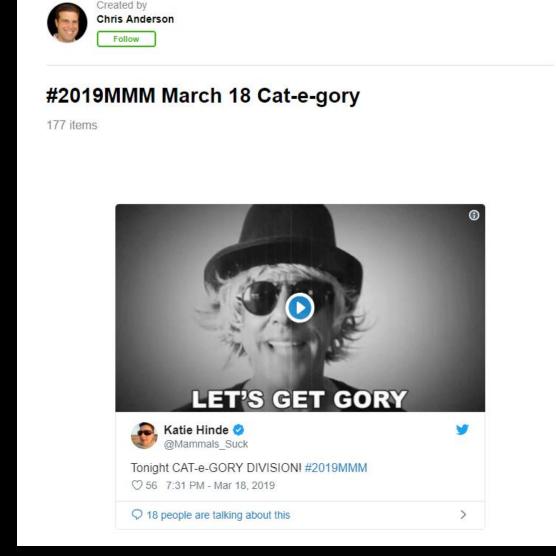




Third-Party Apps: Wakelet



Collect tweets/FB posts/YouTube videos into one long narrative, and share it as a standalone URL for someone to get the full story off of social media!

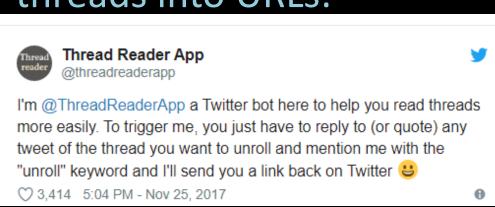


Other useful applications:



<- Like TweetDeck, but

Make big Twitter threads into URLs:

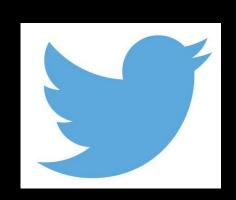




You can only follow 5000 accounts but following encourages engagement (folks will follow back!), so use this to remove the folks that you follow who aren't active anymore

Outline

- 1. Platforms
- 2. Crafting a post
- 3. Driving engagement
- 4. How often?
- 5. Gauging success
- 6. Third-party apps
- 7. Example post



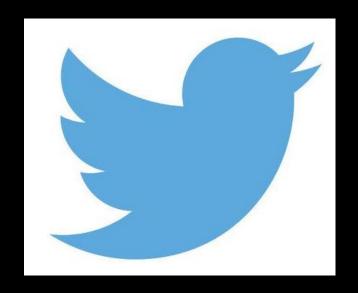




Twitter #SciComm

-what does an ideal sci-comm tweet look like?

- -(captioned) visual media
- -short (280 characters)
- jargon-free message
- -relevant hashtags
- -game/engagement tactic



Facebook: Ohio Audubon Group

-what does an ideal FB sci-comm post look like?

- -captioned visual media
- -longer message, but punchline up front!
- -links to other media (because you can)
- -targeted within a particular group



YouTube: Best Science Communication

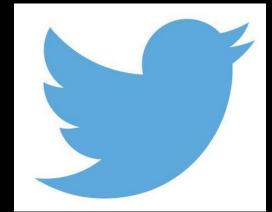
Ever!

YouTube

- -catchy, descriptive title
- -good thumbnail (upload your own if you don't have one but beware disappointment)
- -CC and high quality settings
- -tagged to reach larger audiences
- -nestled in a playlist so folks can find more of your work
- -well-captioned with links to other accounts

Conclusions about Sci-Comm and Social Media

- -use it!
- -target the different audiences on the different sites
- -be aware of media accessibility and plan accordingly
- -foster an identity through hashtags and simple handles, link accounts but not posts!
- -engage through lists, groups, games, etc.
- -let third party apps make it easy for you
- -tag folks and share the love
- -promote social media off of social media
- -remember to continue targeting other audiences



YouTube

