

**YOU CAN LEAD  
A USER TO  
CONTENT, BUT  
YOU CAN'T  
MAKE THEM  
CLICK.**

K. Anthony (University of Udine) on  
behalf of ATLAS Outreach Team

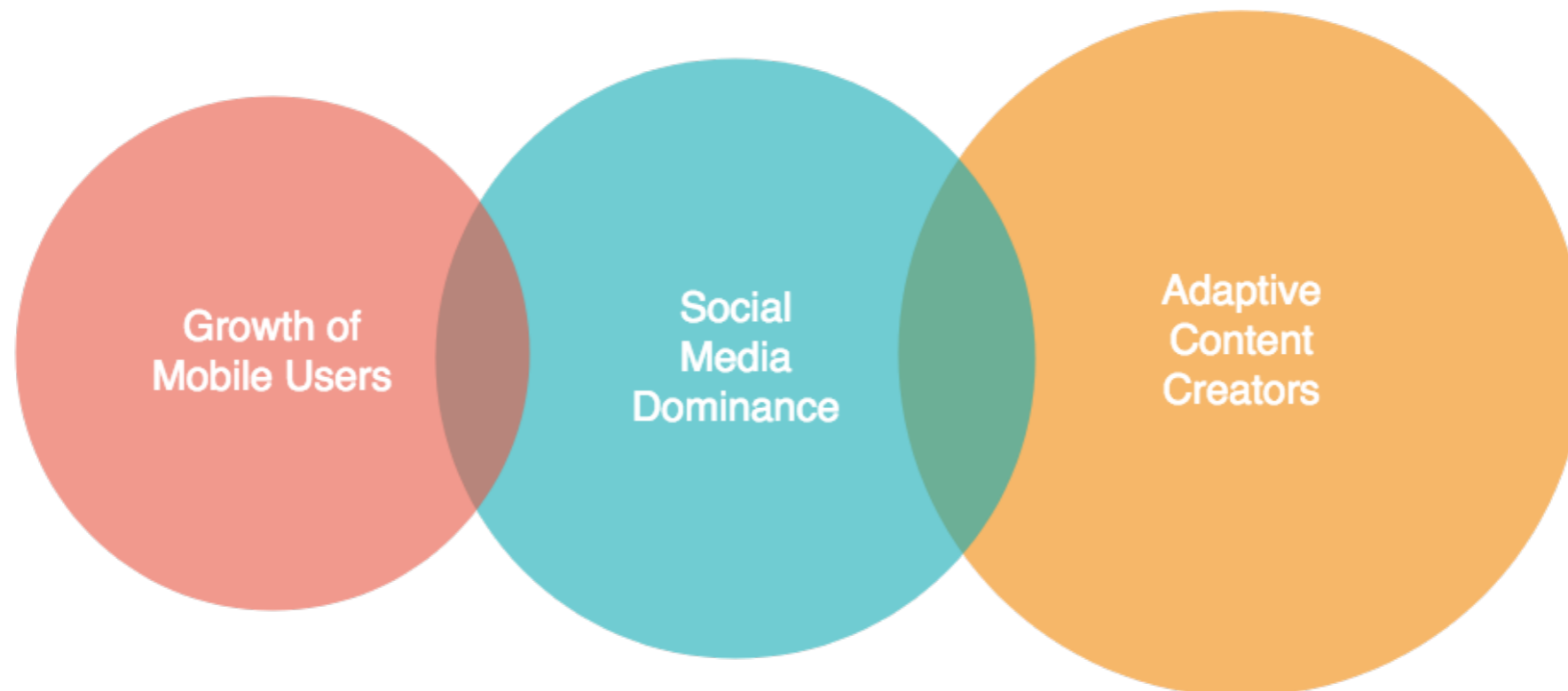
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# THE "SOCIAL CONTENT" STRATEGY OF THE ATLAS EXPERIMENT



# SHIFTING PERSPECTIVES

- ▶ Traditional web-content strategies **no longer effective** as content **tailored to social media** has become common place.

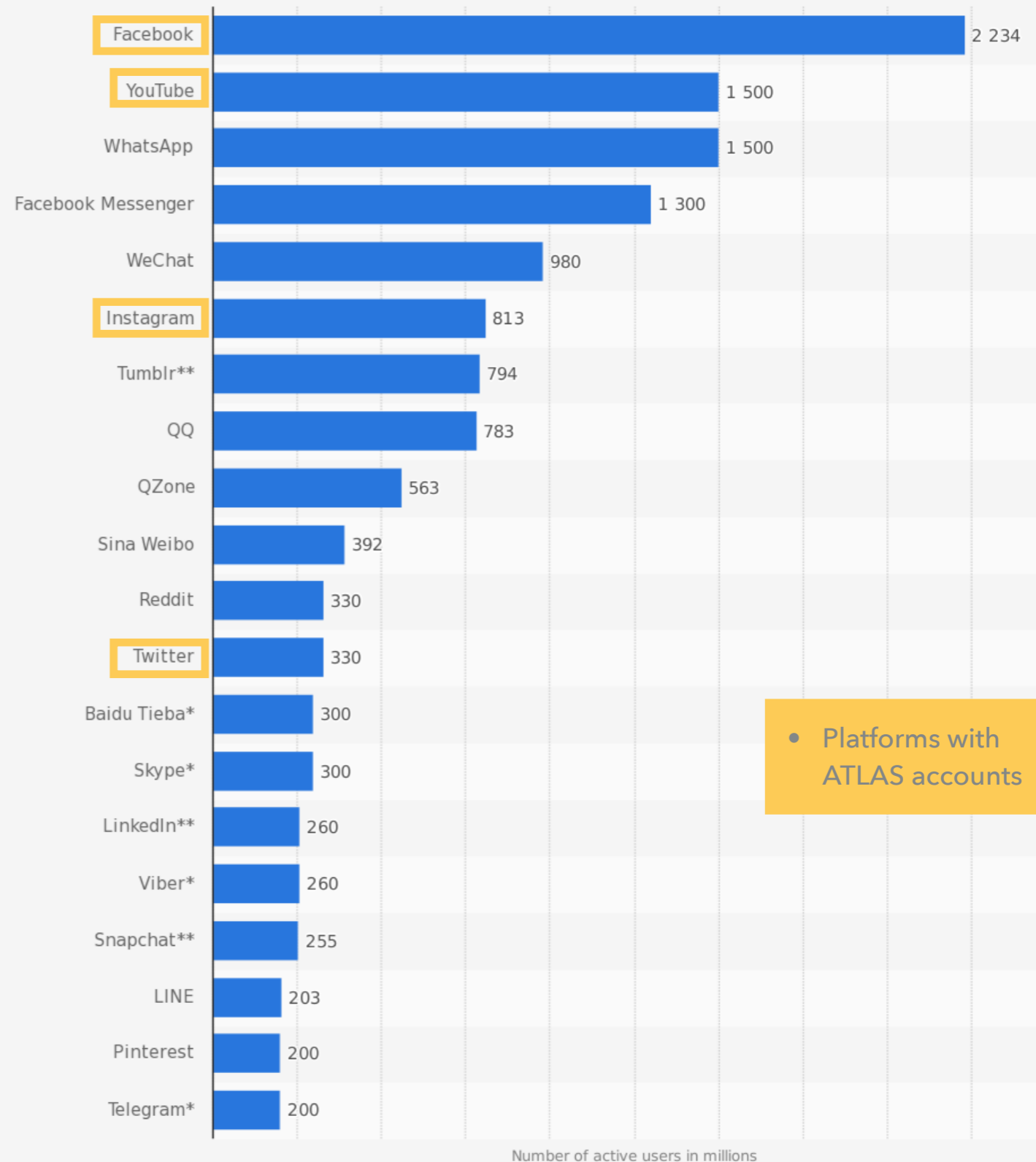


- ▶ How can collaboration-led science communication adapt without losing the **integrity** of their messages?

# THE NEW NORMAL: SOCIAL

- ▶ No longer any doubt about the longevity of social media:
  - ▶ Of the 4 billion people active global internet users, **3.3 billion** use social media (*April 2018, We Are Social/Statista*)
  - ▶ 2.2 billion of these users are on Facebook
  - ▶ Instagram's size is worthy of note - as its user base is unique from traditional social media accounts, and has had a staggering growth rate.

Most popular social networks worldwide as of April 2018, ranked by number of active users (in millions)



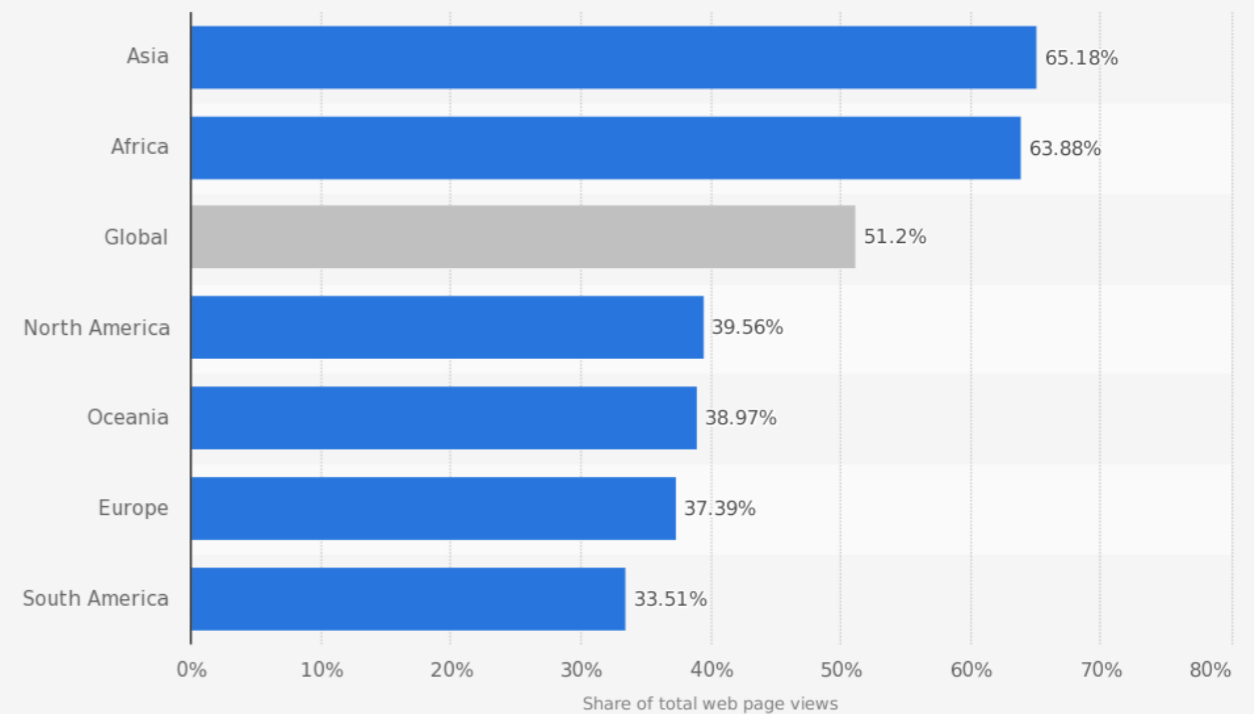
Sources  
We Are Social; Kepios; SimilarWeb;  
TechCrunch; Apptopia; Fortune  
© Statista 2018

Additional Information:  
Worldwide; We Are Social; SimilarWeb; TechCrunch; Apptopia; Fortune; Fortune; as of April 12, 2018; social network app/voip included

# THE NEW NORMAL: MOBILE

- ▶ Mobile devices are now the main means of accessing the internet for global users
- ▶ The markets where mobile devices have the highest shares of internet use are **geographically diverse**. For example:
  - ▶ Spain is top, with an estimated 81% of internet use coming from mobile devices in 2017, followed by Italy (78%), China and the US (each at 77%) and India (73%). (*Zenith's Mobile Advertising*)
- ▶ Social media is app-based:
  - ▶ More than **95% of Facebook users** use Facebook on their mobile
  - ▶ Instagram is developed for mobile, i.e. new IGTV only allows portrait mode

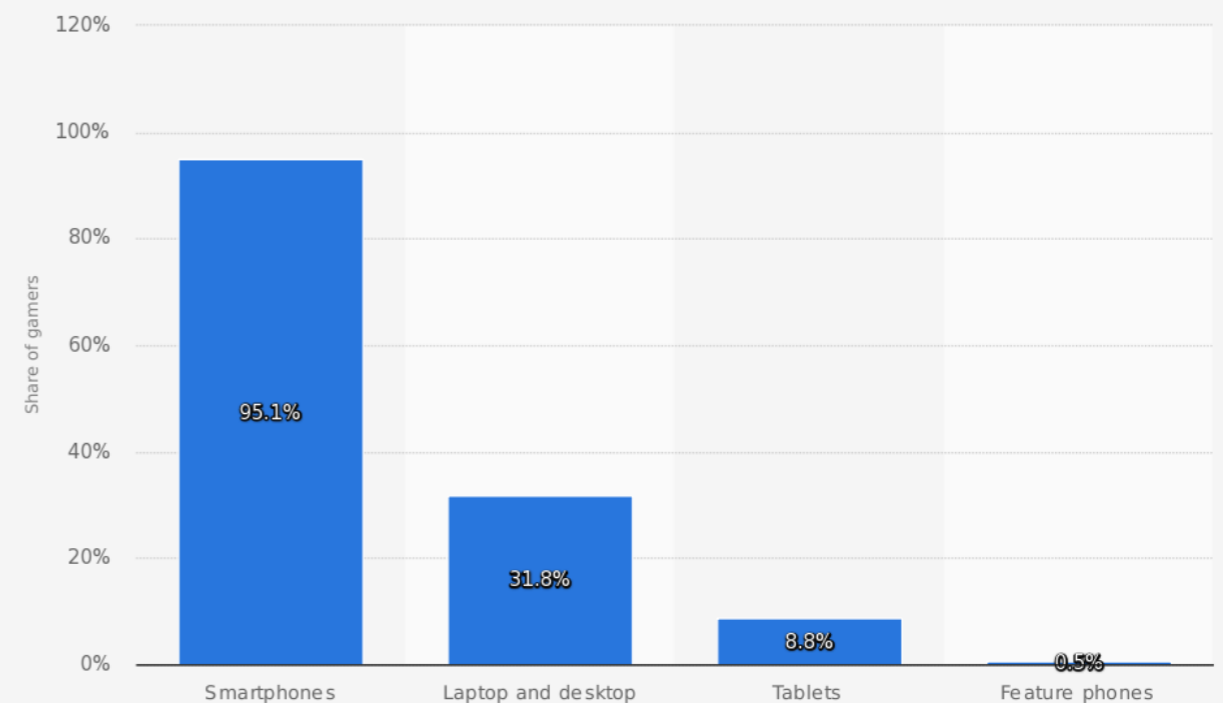
Mobile internet traffic as percentage of total web traffic in April 2018, by region



Source  
StatCounter  
© Statista 2018

Additional Information:  
Worldwide; StatCounter; April 2018; mobile only, excluding tablet traffic

Device usage of Facebook users worldwide as of January 2018

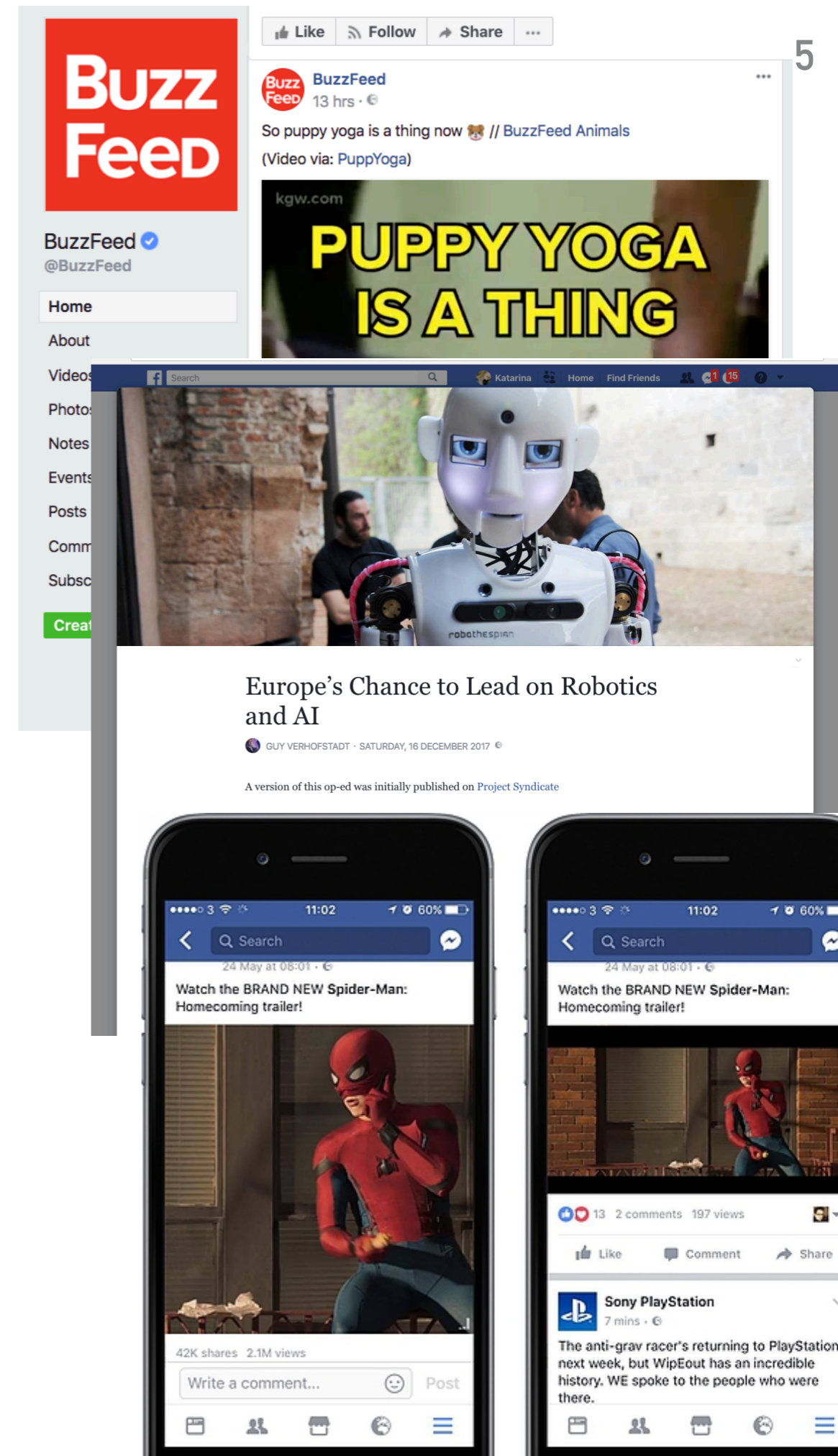


Sources  
Facebook; We Are Social  
© Statista 2018

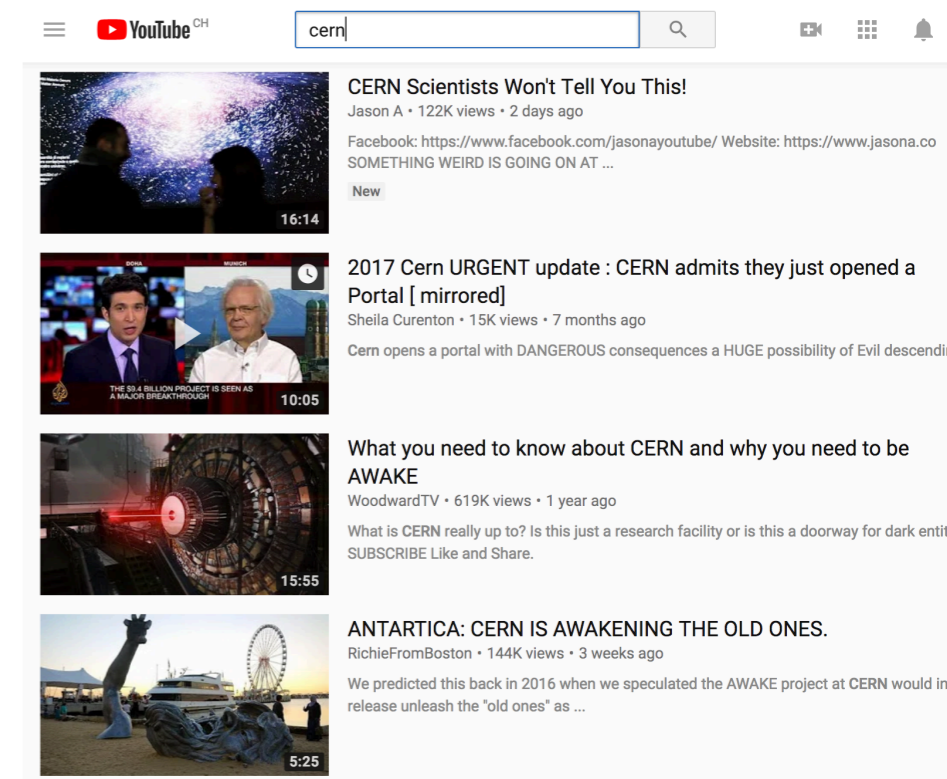
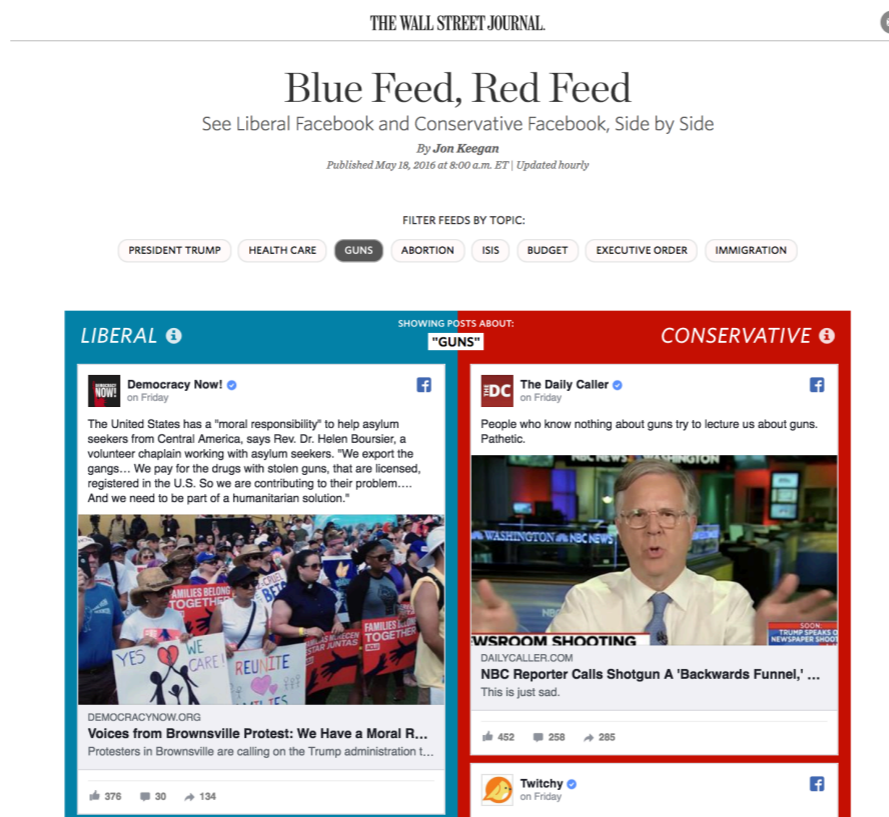
Additional Information:  
Worldwide; We Are Social; January 2018

# THE SOCIAL CONTENT LANDSCAPE

- ▶ Tailored to low-attention spans:
  - ▶ Everyone is suffering from **low click-through** - Users primarily read headlines and scroll past
  - ▶ Facebook advertises anything over 2% as “high”, with typical rates between 0.5-1.6%
- ▶ Video content is king:
  - ▶ Facebook algorithm **boosts videos** over images
  - ▶ Forbes estimates that over **80% of user traffic will be video by 2019**
- ▶ Content is being tailored to mobile users:
  - ▶ Video consumption on mobile has increased **233%** since 2013, and more than half of video views take place on mobile
  - ▶ 1:1 ratio videos are now the standard, as they take up **78% more real estate** in the News Feed on mobile than on desktop
  - ▶ Content producers are **staying on the platform**, lowering the threshold for engagement by removing the need to click-through
- ▶ **Content is being made to share** - in other words, it is **evoking an emotional reaction.**



# OTHER USES OF THIS TREND...



“Using actual fake news headlines presented as they were seen on Facebook, we show that even a single exposure increases subsequent perceptions of accuracy, both within the same session and after a week. Moreover, this **“illusory truth effect”** for fake news headlines occurs despite a low level of overall believability”

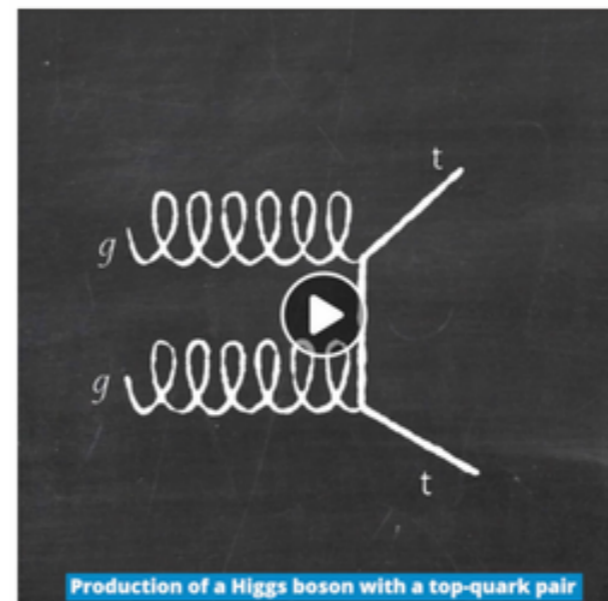
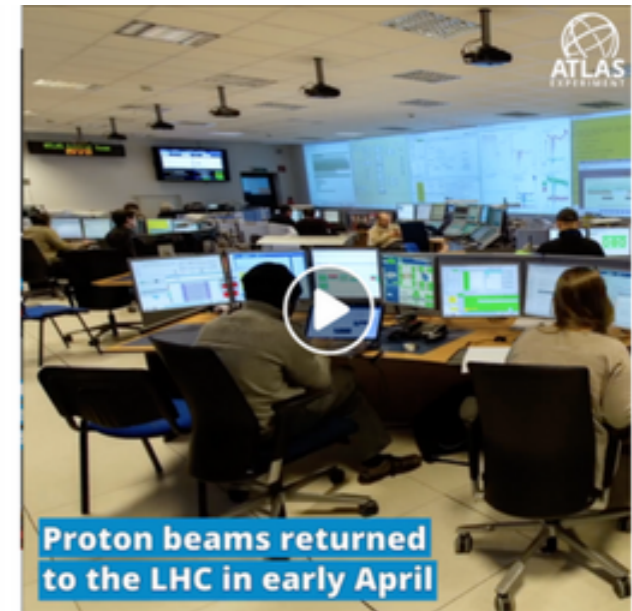
- ▶ Pennycook, Gordon and Cannon, Tyrone and Rand, David G. (Yale University) Prior Exposure Increases Perceived Accuracy of Fake News (May 3, 2018). Forthcoming in *Journal of Experimental Psychology: General*



# HOW HAVE WE ADAPTED?

## ATLAS has expanded its social-media only content

- ▶ New videos between 1-2 min with concise content & main messages delivered in 3 seconds.
- ▶ Videos feature captions to facilitate the viewing experience.
- ▶ Social media videos are 1:1 ratio - also creating Instagram video content in portrait ratio.
- ▶ On Facebook, we are making complete content available directly on platform through Facebook Notes.
- ▶ Continue creating unique content for Instagram, but expanding to unique facebook & twitter content.



Social content: Keeps users on the platform, grabs their attention quickly and **caters to the algorithm.**

# EXAMPLE CONTENT: OUR MOST SUCCESSFUL VIDEO OF THE 2010S

**ATLAS Experiment at CERN**  
Published by Emma Jarvis-Ward [?] · 8 March · 🌐

Today, ATLAS is celebrating International Women's Day! Meet some of the amazing #womeninscience in our collaboration. #IWD2018

**Get more likes, comments and shares**  
Boost this post for Fr.5 to reach up to 4,200 people.

🕒 People have watched this video for a total of **23K minutes** [Boost Post](#)

👍❤️😂 607      16 Comments 915 Shares

**Performance for your post**

**175,330** People Reached

**49,775** Video Views

**5,769** Reactions, comments & shares ⓘ

<b>3,739</b> 👍 Like	<b>498</b> On post	<b>3,241</b> On shares
<b>796</b> ❤️ Love	<b>137</b> On post	<b>659</b> On shares
<b>10</b> 😂 Haha	<b>0</b> On post	<b>10</b> On shares
<b>27</b> 😲 Wow	<b>3</b> On post	<b>24</b> On shares
<b>1</b> 😞 Sad	<b>0</b> On post	<b>1</b> On shares
<b>4</b> 😡 Angry	<b>1</b> On post	<b>3</b> On shares
<b>240</b> Comments	<b>18</b> On Post	<b>222</b> On Shares
<b>967</b> Shares	<b>915</b> On Post	<b>52</b> On Shares

**15,671** Post Clicks

- ▶ 1 min video for International Women's Day 2018 was our most successful video since 2008 startup
- ▶ Over 65k views across Facebook, Twitter & Instagram

- ▶ In 2018, video content is not destined to be shared across all social platforms in one format and length.



▶ Comparison between two similar ATLAS videos:

- ▶ Almost x3 reactions (225 vs 669)
- ▶ More than x2 shares (41 vs 110)
- ▶ Despite shorter length, more minutes were watched (1.2k vs 1.7k) of social video

**ATLAS Experiment at CERN**  
Published by Clara Nellist [?] · 20 June 2017 ·

The Tile Calorimeter (TileCal) covers the most central region of ATLAS, and is designed to detect and measure hadrons. It is made of almost 200 modules, each composed of iron plates and plastic scintillator tiles.

In this video, ATLAS TileCal teams performed maintenance of the front-end electronics of 48 modules during the Extended Year-End-Technical-Stop (EYETS).

Read more about the ATLAS activities during the winter technical stop: <http://atlas.cern/updates/atlas-news/atlas-starting-line>

**Tales of the Tile Calorimeter**  
02:53

Get more likes, comments and shares  
When you boost this post, you'll show it to more people.

People have watched this video for a total of **1.2k** minutes

116 Reactions 6 Comments 40 Shares

**Performance for your post**

**9,426** People Reached

**2,744** Video Views

**225** Reactions, comments & shares

Like	101 On post	54 On shares
Love	13 On post	3 On shares
Wow	2 On post	0 On shares
Comments	7 On Post	4 On Shares
Shares	40 On Post	1 On Shares

**561** Post Clicks

Clicks to Play	11 Link clicks	432 Other Clicks
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**NEGATIVE FEEDBACK**

2 Hide Post 3 Hide All Posts  
0 Report as Spam 0 Unlike Page

Reported stats may be delayed from what appears on posts

**ATLAS Experiment at CERN**  
Published by Katarina Anthony [?] · 30 January ·

Engineers are working in the ATLAS cavern this month. Find out why in the video below!

**Teams are hard at work in the ATLAS Experiment**  
00:54

Get more likes, comments and shares  
Boost this post for Fr.5 to reach up to 4,300 people.

Your video is popular with **men aged 25-34**

311 Reactions 3 Comments 110 Shares

**Performance for your post**

**15,069** People Reached

**4,877** Video Views

**669** Reactions, comments & shares

Like	272 On post	201 On shares
Love	40 On post	12 On shares
Haha	2 On post	0 On shares
Wow	6 On post	9 On shares
Angry	1 On post	0 On shares
Comments	4 On Post	12 On Shares
Shares	110 On Post	0 On Shares

**1,117** Post Clicks

Clicks to Play	0 Link clicks	805 Other Clicks
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**NEGATIVE FEEDBACK**

2 Hide Post 2 Hide All Posts  
0 Report as Spam 0 Unlike Page



# EXAMPLE CONTENT: FACEBOOK NOTES

The screenshot shows the ATLAS Experiment at CERN Facebook page. The page header includes the ATLAS logo and navigation options like 'Like', 'Follow', and 'Share'. Below the header, there are four posts:

- Post 1 (42 mins):** "Physics Briefing: Quarks observed to interact via minuscule 'weak lightsabers'". The text discusses W and Z bosons and Yukawa couplings.
- Post 2 (8 June at 14:59):** "Physics Briefing: Beyond any doubt - the Higgs boson couples to the heaviest lepton". The text discusses the Higgs boson's affinity to mass and its coupling to heavy fermions.
- Post 3 (5 June at 16:57):** "Physics Briefing: Catching hadronic vector boson decays with a finer net". The text mentions ATLAS collecting data at a centre-of-mass energy of 13 TeV.
- Post 4 (4 June):** "Press Statement: ATLAS observes direct interaction of Higgs boson with top quark". The text mentions the ATLAS Collaboration at CERN.

This block provides a detailed view of the first post from the screenshot. It features a large image of a particle detector cross-section with a red and yellow particle interaction point. The text of the post is as follows:

### Physics Briefing: Quarks observed to interact via minuscule "weak lightsabers"

ATLAS EXPERIMENT AT CERN · THURSDAY, 5 JULY 2018 · 24 reads

Two among the rarest processes probed so far at the LHC, the scattering between W and Z bosons emitted by quarks in proton-proton collisions, have been established by the ATLAS experiment at CERN.

W and Z bosons play the same mediating role for the weak nuclear interaction as photons do for electromagnetism. As light beams of photons from torches or lasers unaffectedly penetrate each other, electromagnetic "lightsabers" will forever stay science fiction. However, beams of W and Z bosons – or "weak light rays" – can scatter from one another.

One of the key motivations for building the Large Hadron Collider (LHC) at CERN was to study exactly this process, called weak "vector boson scattering" (VBS). One quark in each of two colliding protons has to radiate a W or a Z boson. These extremely short-lived particles are only able to fly a distance of  $0.1 \times 10^{-15} \text{m}$  before transforming into other particles, and their interaction with other particles is limited to a range of  $0.002 \times 10^{-15} \text{m}$ . In other words, these extremely short "weak lightsabers" extend only about 1/10th of a proton's radius and have to approach each other by 1/500th of a proton's radius! Such an extremely improbable coincidence happens only about once in 20,000 billion proton-proton interactions, recorded typically in one day of LHC operation.

Using 2016 data, ATLAS has now doubtlessly observed WZ and WW electroweak production, with the dominant part of it being the weak vector boson scattering:  $W_{\pm}W_{\pm} \rightarrow W_{\pm}W_{\pm}$  and  $W_{\pm}Z \rightarrow W_{\pm}Z$ . This continues the experiment's long journey to scrutinise the VBS process: using 8 TeV data from 2012, ATLAS had obtained the first evidence for the  $W_{\pm}W_{\pm} \rightarrow W_{\pm}W_{\pm}$  process with 18 candidate events. Such a yield would occur with a probability of less than 1:3000 as a pure statistical fluctuation. Now, at a higher centre-of-mass energy of 13 TeV, ATLAS has identified 60  $W_{\pm}W_{\pm} \rightarrow W_{\pm}W_{\pm}$  events, which only would happen less than once in 200 billion cases as a fluctuation from pure background processes. This corresponds to a



# REACH OF FACEBOOK NOTES

- ▶ Comparison between two physics briefings published this year with  $\pm$  the same level of reach:
  - ▶ “Link” physics briefing had 58 clicks to read the text on webpage vs “Note” physics briefing had 121 reads directly on Facebook (plus 11 webpage visits)
  - ▶ Format gives users the ability to comment - something to take advantage of in future?

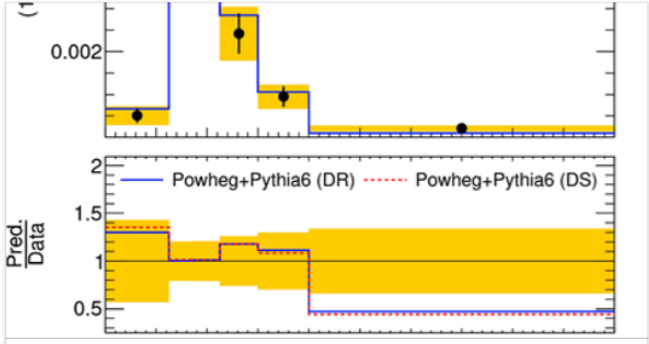
Post Details

**ATLAS Experiment at CERN**  
Published by Katarina Anthony [?] · 18 January at 14:57 · €

[Physics Briefing] Measurements of weak top quark processes gain strength

The production of top quarks in association with vector bosons is a hot topic at the LHC. ATLAS first reported strong evidence for the production of a top quark in association with a Z boson at the EPS 2017 conference. In a paper submitted to the Journal of High-Energy Physics, the ATLAS experiment describes the measurement of top-quark production in association with a W boson in 13 TeV collisions.

<http://atlas.cern/.../measurements-weak-top-quark-processes-g...>



**Measurements of weak top quark processes gain strength**

The production of top quarks in association with vector bosons is a hot topic at the LHC. ATLAS first reported strong evidence for the production...

ATLAS.CERN

Get more likes, comments and shares  
When you boost this post, you'll show it to more people.

3,319 people reached

45 Reactions, comments & shares

1 Comment 10 Shares

Like Comment Share

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**Performance for your post**

3,319 People Reached

61 Reactions, comments & shares

48 Like	44 On post	4 On shares
1 Love	1 On post	0 On shares
1 Wow	0 On post	1 On shares
1 Comments	1 On Post	0 On Shares
10 Shares	10 On Post	0 On Shares

143 Post Clicks

0 Photo views	58 Link clicks	85 Other Clicks
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NEGATIVE FEEDBACK

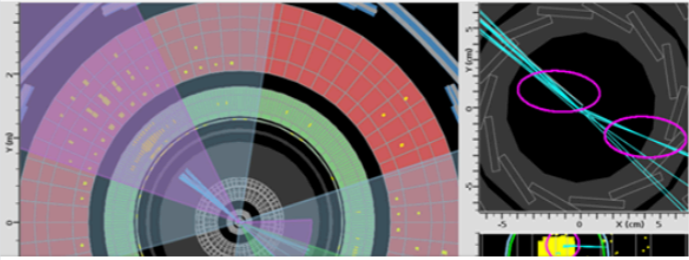
4 Hide Post 0 Hide All Posts

0 Report as Spam 0 Unlike Page

Reported stats may be delayed from what appears on posts

Post Details

**ATLAS Experiment at CERN**  
Published by Katarina Anthony [?] · 1 February at 14:10 · €



**ATLAS studies the dynamics of very high-momentum top quarks**

The top quark – the heaviest known fundamental particle – plays a unique role in high-energy physics. Studies of its properties have opened new opportunities for furthering our knowledge of the Standard Model. In a new paper submitted to Physical Review D, the ATLAS collaboration presents a comprehensive measurement of high-momentum top-quark pair production at 13 TeV.

Studies of high-momentum top-...

See more

3,601 people reached

Boost Unavailable

Wasikul Islam, محمود عبدالحی and 53 others 18 Shares

Like Comment Share

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**Performance for your post**

3,601 People Reached

80 Reactions, comments & shares

57 Like	52 On post	5 On shares
5 Love	5 On post	0 On shares
0 Comments	0 On Post	0 On Shares
18 Shares	18 On Post	0 On Shares

234 reads



# SUMMARY

- ▶ New strategy has proved very effective so far.
- ▶ Every platform has different suggested uses and creative limitations:
  - ▶ Continue to create Social Media videos and publish Facebook notes, in addition to our in-depth videos and website link sharing.
  - ▶ For archival (CDS) purposes: a compilation of social media video content in single video.
- ▶ Still exploring best strategies and content types. Future content plans include:
  - ▶ Reworking older videos into Social-style videos
  - ▶ Exploring possibilities of image-text video compilations, exploiting the algorithm boost for better reach for content with no video material.

# ANY QUESTIONS?

Contact: [katarina.anthony@cern.ch](mailto:katarina.anthony@cern.ch)

