

Communicating ATLAS: adapting to an ever-changing media landscape

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Communicating the status and achievements of the ATLAS Experiment has been a core objective of the ATLAS Collaboration since its founding. To match an ever-changing media landscape, ATLAS has tailored its communication strategy to produce content that effectively targets key audiences. The comprehensive approach of ATLAS communications is explored, with a focus on strategic themes, effective distribution channels, and message. The success of this approach is examined and the effect on user experience is evaluated.

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1. Introduction

A vital component of the long-term success of scientific research is the communication of its results and methodology to the wider public. Traditional science communication strategies have focused on the dissemination of information through long-form, primarily educational material. However, developments in the global media landscape and growing access to mobile devices have led to significant alterations in audience responses and accessibility. This ever-changing media landscape requires science communication strategies to adapt. Social media is a vital tool in this endeavour.

These proceedings will describe the communication strategy of the ATLAS Collaboration and its recent innovations, implemented to adapt to the current media landscape. The success of these strategies will be evaluated.

2. Overview of ATLAS public content and its distribution

The ATLAS Education and Outreach team produces various diverse content for members of the public, including educational books and handouts, multimedia installations, visit points and more [1]. However, these proceedings will focus solely on the public communications published on behalf of the collaboration.

The ATLAS public website [2] is the primary source of public content about the collaboration. Public updates published on the ATLAS public website range in style, depending on the target audience. Update types include:

- *News Articles & Press Statements*: Updates reporting on major milestones of the ATLAS detector [3], key physics results, summaries of accomplishments, human achievements, etc. Aimed at a broad, non-expert audience, with an interest in science, i.e. general public, science journalists, and policy makers.
- *Physics Briefings*: Short summaries of ATLAS results published at the time of the result's release. The audience of physics briefings is also non-expert, but with a keener interest and appreciation for high-energy physics, i.e. science journalists, science enthusiasts, and non-ATLAS physicists.
- *Feature Articles*: Long-form updates on key physics subjects, such as supersymmetry or dark matter. Aimed at a non-expert audience with an educational interest, i.e. high school and university physics students and professors.
- *Collaboration Member Portraits*: Profiles of ATLAS members whose contributions have helped shape the ATLAS Collaboration. Aimed at a non-expert audience with an interest in the "human" aspects of the collaboration.
- *Blog posts*: Updates written by members of the collaboration, providing personal perspectives on the ATLAS Collaboration and its research. Targets broad, non-expert audiences, with an interest in the "human" aspects of the collaboration.

The ATLAS Collaboration is present on several social media platforms, including Instagram [4], Facebook [5], Twitter [6], and YouTube [7]. These channels have traditionally been used with an emphasis on announcement rather than engagement [1].

3. Maximising the reach of ATLAS public content: a new approach

The modern media environment has grown more social and more mobile-based since its migration to the web over two decades ago, and has since remained in a state of constant evolution [8]. There is significantly higher potential to access a large and diverse global audience, yet competition on social networks is significant. Science communication strategies need to adapt to this rapidly changing environment.

The ATLAS Education and Outreach team has implemented a multi-fold approach to the creation and dispersion of content [9], maximising the use of ATLAS social media channels and taking advantage of new external platforms, while maintaining the ATLAS public website as the primary source of content.

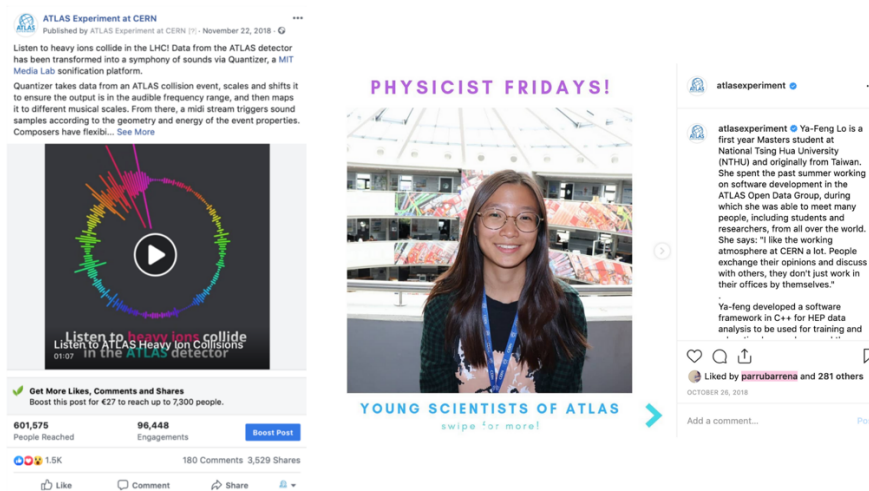


Figure 1: Examples of ATLAS social content created in 2018. Left: "Listen to Heavy Ions Collide in the ATLAS Detector" social media video. Right: A "Physicist Friday" post from a dedicated Instagram series.

3.1. Social Content: approach

The primary usage of ATLAS social media channels is no longer simply to redirect users to the ATLAS public website. Instead, they are being exploited as a publication platform in their own right, as has become the industry standard. The ATLAS Education and Outreach team publishes "social content", created solely for use on social media channels and released in conjunction with traditional communications on the ATLAS public website.

ATLAS social content caters to social media platform algorithms and modern user attention spans, while maintaining the integrity of the message being delivered. Specific examples of social content include:

- *Social Media videos*: created solely for use on the social media platforms, these videos are kept short (between 1-2 min), and feature clear and concise content (e.g. "Listen to Heavy Ions collide in the ATLAS Detector", Figure 1). The primary message of the video is delivered in less than three seconds, to capture the short attention of users. Adapting to mobile-users, the videos are in 1:1 ratio, increasing their visibility on mobile devices.
- *Social Media images and written content*: new posts and stories created specifically for social media. Instagram, in particular, is utilised as a new platform for evergreen and unique short-form content (e.g. "Physicist Friday" interview series, Figure 1).

3.2. Social content: impact

The implementation of this strategy has led to ATLAS' best received videos since 2011, as shown in Figure 2. This includes ATLAS' best performing video ever: "Listen to Heavy Ions collide in ATLAS", gaining 230k views across three social media platforms (Instagram, Facebook and Twitter).

New posts and stories created for Instagram have led to significant follower growth on the platform (2k followers in mid-2017 to 13.3k in mid-2019). Over 2019, the engagement rate on Instagram has grown to average 1.5k views per story and 750 likes per post.

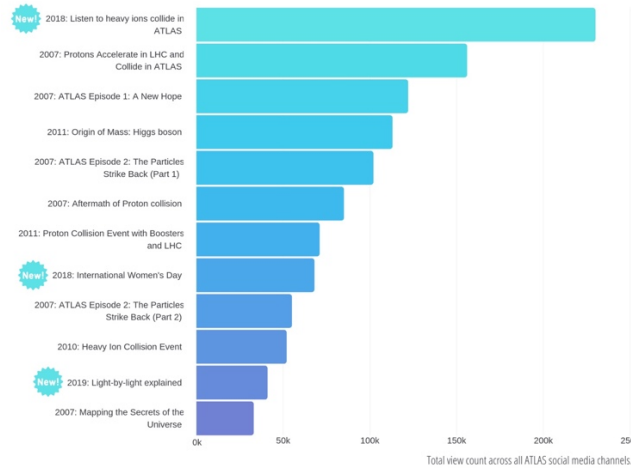


Figure 2: The 12 best performing videos published on ATLAS social media channels between 2008-2019. Highlighted “new” are the videos published since the implementation of the new ATLAS social content strategy.

3.3. New platforms: approach

While social content can generate engagement on the respective platform, a major objective remains driving users to long-form ATLAS updates, which provide a more in-depth understanding of the collaboration and its results. The ATLAS Education and Outreach team has widened the accessibility of this content, utilising external platforms to publish and promote ATLAS content, accessing new user bases. These platforms include:

- *Phys.org*: ATLAS physics briefings are published directly on the *Phys.org* news website, which has a large established user base.
- *Facebook Notes*: ATLAS physics briefings and press releases are published directly on Facebook, allowing mobile users to remain on the application when viewing the update.
- *Google News*: All ATLAS updates appear in Google News, increasing the visibility of updates and driving more users to the ATLAS website. Further, it has ensured that an “official voice” is represented among external coverage of high-profile stories (i.e. the 2018 announcement of the Higgs boson decaying into a pair of b -quarks).

3.4. New platforms: impact

Phys.org accounts for 70% of all views of ATLAS physics briefings. When compared with Facebook posts linking updates to the ATLAS website, the read-rate of physics briefings on

Facebook Notes has increased by 250%. In 2018, Google News referrals were the third largest drivers of traffic to the ATLAS website.

Conclusion

The social content strategy of the ATLAS Education and Outreach team has proven effective so far and remains open to further developments. In 2019, additional types of social content are being tested, including Instagram Lives and “Ask Me Anything” stories. Further, a new ATLAS public website is under development with improved Search Engine Optimisation (SEO) and dynamic mobile capabilities.

Acknowledgment

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