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Effectively Using Social Media for Research: A LIGO Detection Case Study¹

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The Laser Interferometer Gravitational-Wave Observatory (LIGO) made the first direct detection of gravitational waves on 14 Sep. 2015 and publically announced its findings on 11 Feb. 2016 in a press conference that coincided with the publication of the referred result. In the intervening 5 months, while the detection was being vetted and the paper written, the LIGO Laboratory and the LIGO Education and Public Outreach working group put together a multifaceted media campaign to explain the science and significance of the event to the public. Social media played a vital role in disseminating the news and educational products of the campaign. In the days leading up to the announcement, social media (Twitter and Facebook) was used to build buzz for the announcement. On the day of the announcement, original posts were carefully planned every 10-15 minutes to promote continued interest and prevent information overload. This campaign continued until the end of the month, with decreasing post frequency. Ultimately, over 70 million aggregated Twitter posts were made with at least one of the following hashtags: #gravitationalwaves, #LIGO, or #EinsteinWasRight. In the month following the announcement, the LIGO Facebook page reached 1.5 million people who shared information from the page over 7000 times. LIGO also made use of other forms of social media such as blog articles contributed by LIGO Scientific Collaboration members discussing different aspects of the discovery (from the science to personal experience), a Reddit “Ask Me Anything” (AMA) session where LIGO scientists were able to answer 90% of the 923 submitted questions in the allotted time, by collaborating with the Astronomy Picture of the Day (APOD) to feature an educational image and caption on the detection, and an open, and still active, email address (question@ligo.org) where hundreds of questions submitted by the public have already been personally addressed.

¹On behalf of the LIGO Scientific Collaboration