

**Title:** On being a YouTuber in Echo Education - Using YouTube in Virtual Echo Rounds

**Authors and affiliations:** Patrick Prud'homme, MD FRCPC<sup>1</sup>; Fotis Katsikeris, MD;<sup>1</sup> Ryan Quinn, MD,<sup>1</sup> FRCPC; Chi-Ming Chow, MD, FRCPC.<sup>1</sup>

1. Division of Cardiology, St-Michael's Hospital, University of Toronto.

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**Background:** Most conventional weekly continuous medical education (CME) echocardiography rounds (ER) in Canada are usually run in a single medical centre. We sought to create an alternative CME format using Zoom to broadcast our weekly ER every Thursday from 8-9 AM ET. We then archived the lecture videos to a YouTube channel ([www.youtube.com/@smhecho](http://www.youtube.com/@smhecho)) to increase knowledge dissemination by enabling participation asynchronously and transcending geographical borders. We also used the channel analytics function to identify the most interesting content from a learner's perspective.

**Methods:** On 1st Jan. 2023, we uploaded our 50 ER video recordings (since March 2020) to YouTube. We used YouTube channel analytics to generate statistics about each video's view time, number of views, and viewers' geographical location. We subclassified each video by a general theme to describe each echocardiography subject's popularity. We also analyzed the most popular video for the in-video moments above "typical view retention" to identify the content valued most by the viewers for educational purposes.

**Results:** In the first month of inception, the channel recorded 96 new subscribers, 1126 views, and 97.7 hours watched. 27.1% were international views. The three countries that accounted for the most views were India (33.1%), the United States (31.4%) and Sudan (9.1%). We grouped the videos into 12 different distinctive themes (figure 1). The four top themes were endocarditis/sepsis (22%), rheumatic heart disease (22%), sports cardiology (11%) and cardiomyopathies/pulmonary hypertension (11%). When reviewing the most viewed video on rheumatic heart disease using YouTube analytics, moments of the video that retained significantly more viewers than statistically expected were the sections containing 2D echo loops of a rheumatic mitral valve (29% of the video's viewers), a figure explaining the difference between rheumatic and other forms of aortic stenosis (32%), and fluoroscopy and a 3D echo of a percutaneous mitral balloon valvuloplasty procedure (23%).

**Conclusion:** Creating a YouTube channel for ER can help disseminate CME beyond the physical borders and improve the presentations' quality by identifying learners' interests and needs in terms of CME content.

**FIGURE 1. BREAKDOWN OF THE YOUTUBE CHANNEL VIEWS PERCENTAGE IN RELATION TO THE ECHO ROUND'S THEME**

