

Creating and sharing learner-generated questions through social media: a pilot study.

Background

Over the last 10 years, there has been increasing interest in the use of online content to teach medical trainees and physicians. Most online content consist of expert-created videos or PowerPoint modules that do not encourage active learning. Social media platforms, on the other hand, allow users to participate in creating, sharing, and editing content—strategies that could be leveraged for active learning and education. I sought to test the feasibility of developing a learner-generated, question-based curriculum, and disseminate the results through social media.

Methods

Rheumatology fellows were invited to participate via the American College of Rheumatology (ACR) Listserv. Each fellow was assigned one topic from the ACR Image Bank, a website with 1,500 rheumatology-related images. Fellows were asked to choose 3-5 images, and to create one question per image. Questions were limited to 90 characters, and the answers had to appear in the image description on the website. After participation, fellows were surveyed on the impact of question-generation.

Questions were verified and approved by the ACR Audiovisual Aids Subcommittee. Every Tuesday afternoon, starting on August 4, 2015, one question, corresponding image, and link to the Image Bank website was shared via ACR accounts on Twitter, Facebook, and LinkedIn. Engagement via Twitter was analyzed, and number of page views from the Image bank website was recorded.

Results

28 fellows from 23 different programs participated in this project. Fellow characteristics are shown in Table 1. Fellow survey responses are shown in Figure 1.

116 questions were created, with an average 4.1 questions per fellow (range 2-5). The first four questions distributed are shown in Figure 2. Twitter engagement with these questions, as compared with other ACR tweets during August, are shown in Table 2. Page views to the corresponding Image Bank images are shown in Figure 3.

Discussion

In this project, I show one successful method of leveraging social media for medical education. Rheumatology trainees generated educational micro-content, which they found to be a valuable educational experience and a useful way to learn rheumatology. Prior research demonstrated that learner-generated questions is a highly efficient method of learning.^{1,2} At the same time, these questions engaged other users, who actively sought the answer on the ACR Image Bank. These users likely benefited from practice testing, the finding that material is better learned and retained when it is tested, rather than when it is simply read.³

Fellowship year	n (%)
First year	17 (60.7%)
Second year	7 (25%)
Third year	4 (14.3%)
Type of fellowship	
Adult	22 (78.6%)
Pediatrics	4 (14.3%)
Med-Peds	2 (7.1%)
Age	
26-30	4 (14.3%)
31-35	18 (64.3%)
36-40	4 (14.3%)
Planned career track	
Undecided	7 (25%)
Clinician educator	6 (21.4%)
Private practice	5 (17.9%)
Clinical research	4 (14.3%)
Translational research	2 (7.1%)
Basic research	1 (3.6%)
Social media experience	
Beginner	9 (32.1%)
Intermediate	13 (46.4%)
Advanced	6 (21.4%)
Do you have a Twitter account?	
Yes	14 (50%)
No	14 (50%)
Reasons for participating? (n=26)	
To learn	14 (50%)
To teach	8 (28.6%)
It's fun / interesting	7 (25%)
To utilize and explore technology	3 (10.7%)

TABLE 1. Fellow participant characteristics.

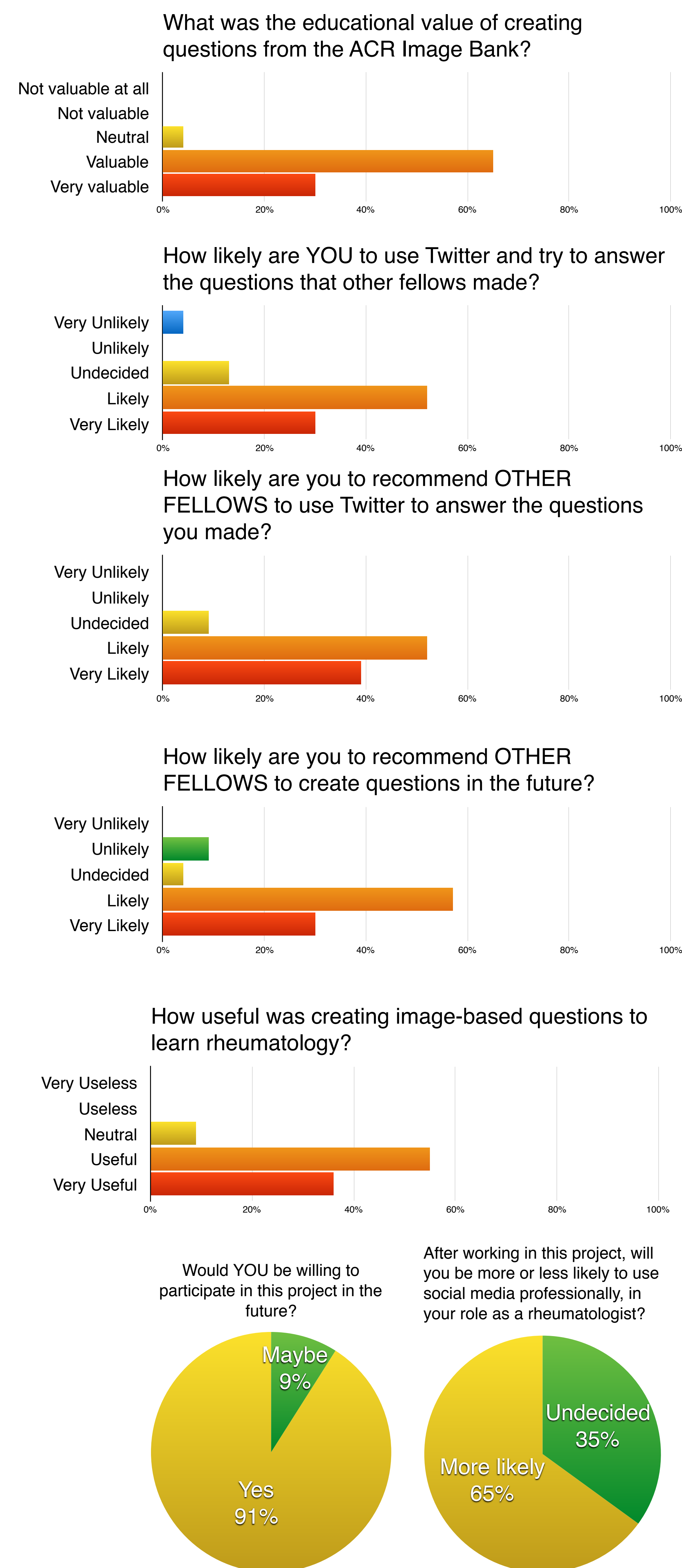


FIGURE 1. Results from fellows after participation in this project.



FIGURE 2. Images and questions distributed in August 2015.

	Clicks	Re-tweets
Image of the week tweets (n=4)		
August 4, 2015	1103	18
August 11, 2015	175	5
August 18, 2015	171	7
August 25, 2015	206	5
<i>Average</i>	<i>413.8</i>	<i>8.8</i>
Other ACR tweets in August (n=107)		
<i>Average</i>	<i>12.9</i>	<i>3.1</i>

TABLE 2. Comparison of user engagement from ACR Twitter account during August.

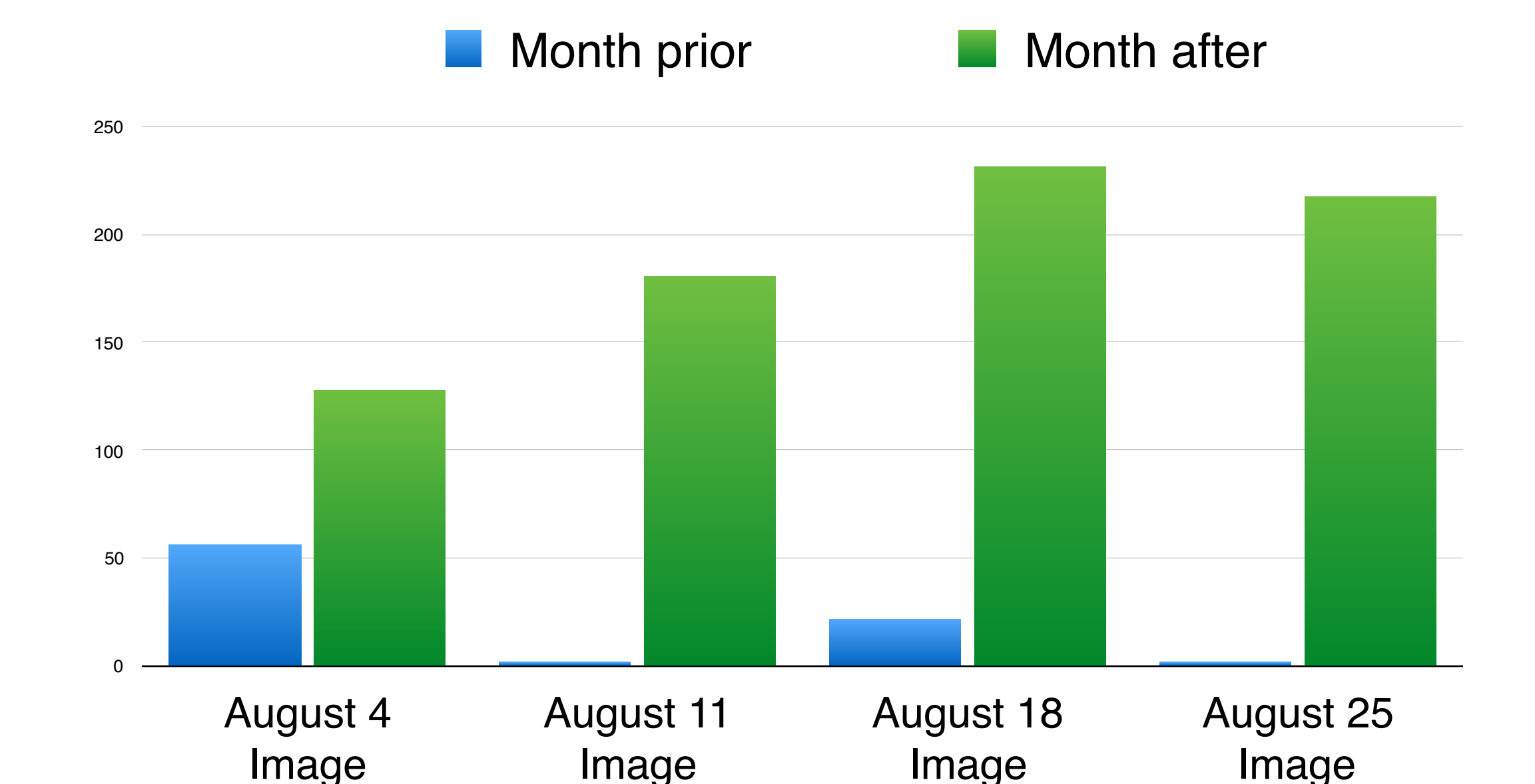


Figure 3. ACR Image Bank page views of corresponding images.

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References

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