

# Moving Image Social Tagging: Professional vs Amateur Production Comparison

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Thumbnail collage of sample videos.

## Introduction

Social tagging of archival moving image materials remains under studied. Previous studies found the users create more tags for short videos than longer videos [1]. This study continues to examine the variables influencing tag creation, and focuses on the following research questions: How does the production quality of a video (professional vs. amateur) change the number & types of tags created by users? Is this impacted by the video's subject and/or if it is sound or silent?

## Methods

Qualtrics Panels recruited 500 paid participants who each watched a brief five minute video and then submitted tags for the video. Participants were required to create at least one tag, with no maximum and they could not view other participants' tags. Each of the eight sample videos were paired professional and amateur versions with additional equal divisions between sound and silent:

### Sample Videos Subjects

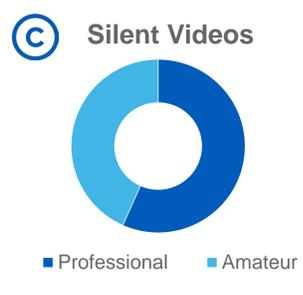
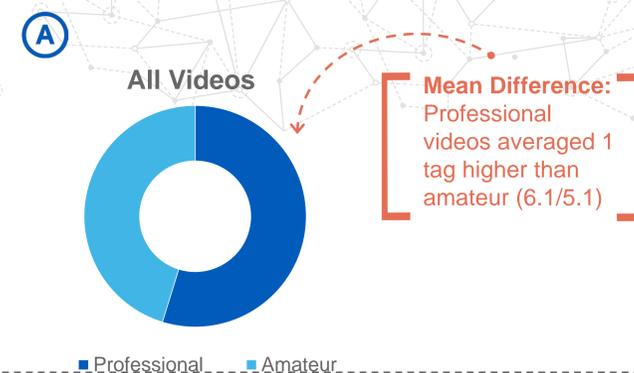
- Zoo with sound
- Christmas with sound
- Christmas without sound
- Football without sound

### Data Analysis

- Descriptive statistics
- Mann-Whitney U
- One way ANOVA
- Open coding

## Results: Quantitative

Participants created a total of 2,750 tags ( $\bar{x} = 5.5$ ) with the professional videos receiving 1,506 ( $\bar{x} = 6.1$ ) and the amateur with 1,244 ( $\bar{x} = 5.1$ ). There was a Pro/Am maximum of 44/31 with a unique tag division of 738/536. Overall, participants created 1,153 unique tags. The following sections describe the results highlighted in each figure and table:

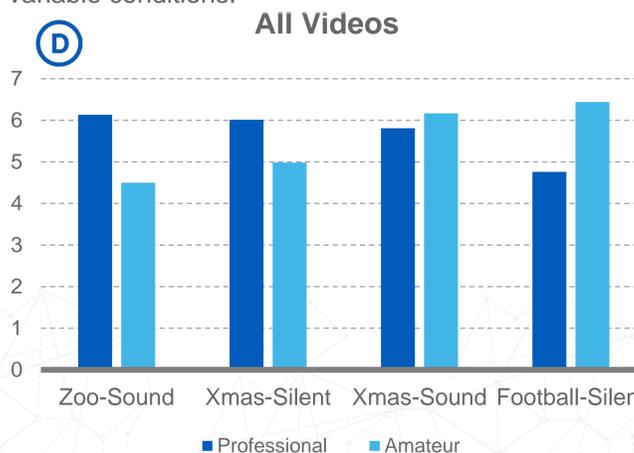


Mean Differential by Variable			
Variable	(Pro - Am) Mean	Z	p
Sound	0.6	-0.889	0.374
Silent	1.4	-1.099	0.272
Topic	1.6/0.3/1.7*		0.755
Overall	1.0	1.802	0.180

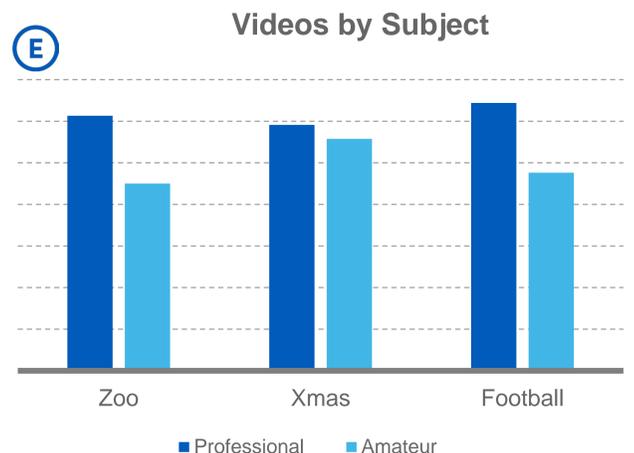
\*Zoo/Christmas/Football.

Table 1

As noted in the table, the difference between professional and amateur videos per user tagging average is not statistically significant for any of the variable conditions.



- A. Comparing the tags for all videos, while professional videos received more tags, the difference is not significant ( $Z = 1.802, p = 0.180$ ).
- B. The professional videos with sound received more tags than amateur (705/631), the difference is not significant ( $Z = -0.889, p = 0.374$ ).
- C. The professional silent videos received more tags than amateur (801/613), the difference is not significant ( $Z = -1.099, p = 0.272$ ).



- D. Shows the comparison of average tags per user for all the sample videos.
- E. Shows the comparison of average tags per user based on video topic

## Results: Qualitative

Open coding identified 10 major categories with 1 divided into 2 sub-categories:

- Action
- Creator/source
- Emotional response
- Film technique
- Format
- Place/location
- Sound
- Subject: Item/object
- Subject: Topical
- Temporal
- Other

Chi-squared Tests for Association (df = 11)		
	$\chi^2$	p
Am/Pro	41.104	<0.005
Silent/Sound	87.595	<0.005
Zoo/X-mas/Football*	189.672	<0.005

\*Strongest phi (0.373).

## Conclusion

Although participants tend to create more tags for professionally produced videos, there is no statistically significant difference for any of the categories tested. The qualitative analysis found associations between the category of video and the types of tags created. The findings of this study, in combination with previous studies, provide some general guidelines and best practices for using user-generated tag of moving image materials.

- Use short videos and/or divide long videos into segments to increase number of tags.
- Consider what types of tags are desired.
  - If archivists would like users to transcribe videos, including narration and/or dialog, they should not include silent videos in the tagging population.
  - Users create more emotionally-based tags for amateur videos than professionally produced.
  - Amateur videos more time-based tags, but less focused on the location of the video.
- Carefully consider the impact of video subject matter when selecting materials for a tagging project. The subject-matter offers a significant indication of the types of tags that will be created.
  - Videos of holiday celebrations illicit a high level of emotional, temporal, and general topical subject tags.
  - On the other hand, sports-related videos produce a good balance of specific and general subject terms.

Future studies will explore the use of time-code based user commenting/description similar to Facebook Live.

## Acknowledgements & Reference

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1. Benoit, Edward, III. "Temporal and Format Influences on Social Tagging of Moving Images." Presented at the Society of American Archivists, Atlanta, GA, August, 2016.