

Assessing the Impact of Factors in a Facebook Post that Influence the EdgeRank Metric of Facebook Using the Power Ratio

E-poster 1779

Potential
of One

Power
of
All

A decorative graphic in the bottom left corner consisting of a network of interconnected hexagons and lines in various colors (blue, green, yellow, orange, red) on a light gray background with a faint hexagonal pattern.

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Facebook Using the Facebook Power Ratio

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Abstract

Facebook is arguably the most important online social networking service, and most marketers today are trying to use Facebook’s network of 1.1 billion-plus registered users for social media marketing. Local television stations and newspapers are no exception. This paper investigates what makes an effective post.

A Facebook page operated by a brand has fans or people who like the page and follow the stories posted on that page. The posts on a brand page, however, do not always appear on every fan’s News Feed. This is determined by EdgeRank, a Facebook proprietary algorithm that determines what content users see and how it is prioritized on their News Feed. Facebook Power Ratio, a surrogate to EdgeRank, was developed by experts at Frank N. Magid Associates, a research-based media consulting firm. Regression models were built on the engagement factors of Facebook Power Ratio with the important variables being large photos, crime news, fans, thumbnail, government, and asking for question.

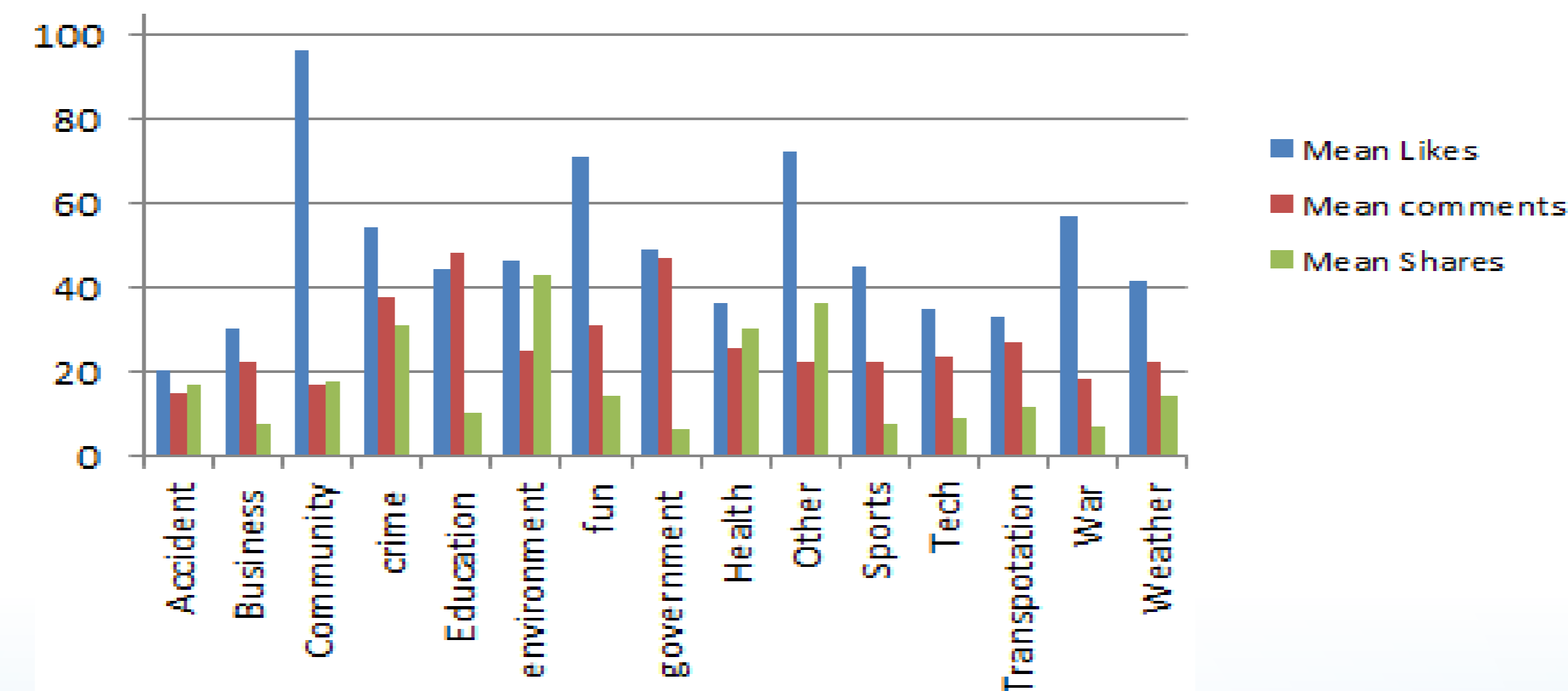
Objective

The objective of this project is to find the characteristics of a Facebook post that enhance the efficacy of a news outlet’s page among their fans using Facebook Power Ratio as the target variable.

Data Preparation

The dataset consists of 8,815 Facebook posts from 293 Facebook local TV stations and newspapers. Pages were analyzed from 62 different markets and included over-the-air broadcasters who produce news, plus the top one or two newspapers in the market. The pages were spread throughout the U.S. and Canada. These observations were collected from their respective pages within a 48-hour window on February 12-13, 2013. Each post observation describes the content, multimedia element, calls to action, and observed number of interactions (Likes, Comments, Shares) with the corresponding post to get the weighted engagement metric – Facebook Power Ratio.

Data Exploration



	Likes	Comments	Shares
Ask Likes	Yes	No	No
Ask Comments	No	Yes	No
Ask Shares	No	No	Yes
Question	No	Yes	No

“Yes/No” – determines whether there is a significant difference in the specific fans interaction variable (mean) for the two binary levels of a “call to an action” variable.

“The above table displays that fans’ interaction to a post, holds good when asked for a specific action on it.

Modeling

Liner regression models on Likes, Comments, and Shares were built individually using the Stepwise selection method with p-value to enter (0.05) and p-value to exit (0.05) on multimedia content and call to action .

The standardized parameter estimate table is provided for all the significant variables across the three models.

Variables	Standardized Estimate		
	Likes	Comments	Shares
Thumbnail	-0.22984	-0.18192	-0.08441
Weather_Content	-0.0581	-0.08555	
NC_Accident	-0.05144	0.03468	0.01967
Traffic_Content	-0.04883	-0.02176	-0.02655
Video	-0.04659	-0.06652	
Tease	-0.02132		-0.05098
NC_Weather	0.02498	0.01996	
NC_Fun	0.0253		-0.01982
Question	0.03095	0.20645	
AskShares	0.03472		0.10979
NC_Crime	0.04705	0.22143	0.09313
AskComments	0.05134	0.12983	0.01874
AskLikes	0.12402	0.05309	0.02279
Large_Photo	0.21421	0.12411	0.2253
NC_Government		0.16895	-0.07874
Contest_Content			-0.03126
NC_Sports			-0.03068
NC_War			-0.02764
NC_Health		0.0321	0.04685
News_Content		0.07543	0.13922
Fans			0.34083
NC_Comm		-0.03676	
NC_Transportation		0.04154	
NC_Education		0.06609	

Dark Green to Dark Red indicate the shift from high positive impact to high negative impact parameters.

Conclusions

- Large photo has a huge positive impact on the likes on a Facebook post.
- Crime and Government categories in the news contents has more comments than otherwise.
- Thumbnail has a high negative impact on the number of Likes, Comments, and Shares of a Facebook post.

References

- <http://www.whatisedgerank.com/>
- <https://www.facebook.com/edgerankchecker>

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