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## TECHNIQUES FOR ANALYZING FRAMED DATA

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### ABSTRACT

Framing is a popular technique in media studies and social movement theory to promote or describe an issue, place blame, propose solution and ask readers to take some action on an issue, analysis of such frames is an evolving area not newly but from decades. This paper exploits how framing can stimulate sentimental expressions, principle techniques of frame detection, taxonomy of frames and validation models for frames.

*Keywords: Frame analysis, keyword analysis ,Frame validation, Framing.*

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## I. INTRODUCTION

As journalists are professional symbol handlers with a high degree of self-reflexivity, it is probably no accident that media studies treat framing as a more conscious process. Indeed, social movement theory considers "conceptual scaffolding" [1], a metaphor, which in fact is more appropriate to Goffman's. However, social movement theory also elaborates "framing tasks" for successful movement mobilizations [1] [2], it thus also wanders into the direction of conscious framing.

Social scientists have long understood that the way an issue is framed has important consequences [3] [4]. Framing—whether intentional or not—involve selectively emphasizing certain dimensions of an issue over others, setting the context for perception and discussion around specific causes, risks, policy actions, and costs/benefits that might result from these actions. The frame used suggests both the diagnosis of the problem as well as prescriptions for what should be done about it [7][8]. Moreover, the way an issue is framed—in the media or in other communications—interacts with audience members' pre-existing schema, mental models and values. As a consequence, a specific message frame is particularly influential to the extent that it is relevant—or applicable—to the audience's preexisting predispositions and perceptions [7][8]).

The term "frame" is widely used in communication research. However, many studies have considered the concept of framing as a story topic (or theme) or an issue position and failed to consider the underlying power struggle shaping the discourse [9]. Recently, scholars have incorporated the framing process into social movement research by defining a frame as "an interpretive schemata that simplifies and condenses the 'world out there' by selectively punctuating and encoding objects, situations, events, experiences, and sequences of actions within one's present or past environments"[10]. The framing process is composed of "diagnostic", "prognostic", and "motivational" framings: diagnostic framing identifies the culpable agents whom people can blame for pending problems; prognostic framing establishes plans for redressing problems caused by those agents; and motivational framing develops motives for implementing plans. This process can be observed in rhetorical strategies which affect the alignment of collective and personal identities [5]. Although many other factors such as socioeconomic status and ideological perspectives may help align the personal identity with the collective identity, framing processes have been empirically found to facilitate the linkage between personal and collective identities by discourse sharing [6]. By examining the content of tweets, based on the three frames, the question of the formation of collective identity among group members can be explored.

## II. LITERATURE SURVEY

### How framing can stimulate sentimental expression?

On SNS, micro blogging, newspaper online articles framing is been used to describe an idea, to form a collective identity or to emphasize collection of corpora on a particular issue. Teresa A. & et al.[11] has discussed on how framed news articles about climate change emphasizes on the risks to environment, public health or national security. They have also discussed the benefits of mitigation and adaptation related actions. The study shows that the people that were currently disengaged or dismissive of the issue, due to framing process have more personally, emotionally engaged to segments of public health.

Sujin choi & et al.[12] has studied how an online community has employed social media to mobilize people for a political goal. The study also shows that group members formed a collective identity through the framing process of discourse.

Emotions serve as affective prompts for engagement with an issue and lead to forming predispositions for action when a relevant situation arises [13]. Furthermore, emotions themselves can serve as frames by which future information is interpreted [14]. Negative emotions, such as anger or fear, motivate us to the need to be on “high-alert” and to seek more information about an issue (Baron et al. 1994), can lead to greater risk perceptions and greater policy support [15], and have the potential to transform apathy or indifference into perceived importance and behavioral action [16].

Positive emotions can also play an important role in message response [17].

Feelings of hope related to climate change, for example, likely increase the probability that individuals will choose to engage with the issue and adopt beliefs and behaviors consistent with efforts to stem the problem [18][19][20] and Hope is often aroused as perceptions of efficacy, the belief that an individual has the capacity to implement a proposed response to a threat and that the recommended action can effectively mitigate the threat, increase[21]. Feelings of hope and efficacy are

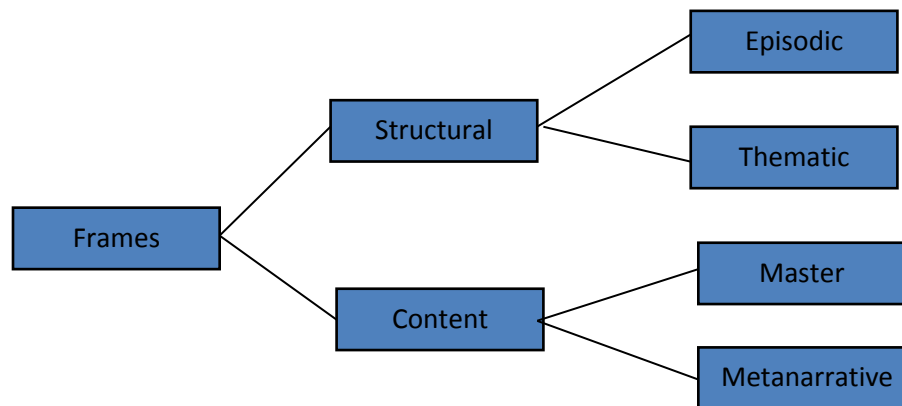
strongly correlated with a willingness to engage in pro-environmental behaviors and to support climate change policies [22]. Conversely, feelings of hopelessness and inefficacy related to climate change are linked with a tendency to ignore the problem or to rationalize inaction [23].

Framing thoughts on an issue and circulating them on SNS has become a very common technique. Political discussion on civic engagement has been found to be positive in Meta analysis[24]. Framing thoughts through SNS has been used as an instrument in mass street demonstration and has given birth to new form of collective actions on daily civic and political/social involvement.

The use of internet for social mobilization using frames has been found to have a major impact on social movement organization for fundraising and generating resources [25].

Thus framing can connect people logically or emotionally. In order to engage people in framing, behavior of the people on a particular issue is a task of research. The research presented here deals with sentiment [emotions].

**Taxonomy of frame**



**Fig 1. Taxonomy of frame**

**III. TECHNIQUES FRAME DETECTION**

There is no systematic way for frame construction or any tool for automated frame construction. Thus we depend on how individuals prepare/create them. Rather in some cases researchers give an authorities order to construct a frame in particular way. Frame taxonomy shown in fig 1 can be helpful in identification of frames.

Can anything be framed as a frame? Like a social situation, conflicts or human/industry interests. What is the life of such frames? Do they really exist or they die unborn, perhaps there life is limited by a scope of phenomena.

Frame can focus on structure or on contents. Structural frames cannot be tied to specific topics whereas content frames can be keyed in almost any situation.

Frames are not discourse in their entirety nor are visible to measure so identifiable frame terms, attribute or devices can be used as evidence indicator [keyword] for identifying frames and this can be a measure to identify frames.

Whenever human beings see, read or write a sentence, document or article in a research paper, newspaper, blog they have a tendency of extracting / searching / remembering the important words [key phrases] which is a tedious / hard work if done by computer because human brains are having big knowledge / information banks from where they extract and on the basis of same they start working /analyzing / predicting a situation, doing this by a computer is not impossible but hard.

Implicit factors like length, structure & parts of speech tagging [noun, verb] of document plays a major role in keyword analysis. Whereas explicit factors like title and query log of search engine also play an additional role in keyword analysis.

Keyword makes frames identifiable in large corpora of data. So to identify a frame first identify these keywords. Since keywords work as an evidence for a frame, it is easier to identify keywords rather than frame itself.

#### **Automatic keyword finding is a 5 step process**

Most frequently used words /strings within the data can be keywords & they can be automatically generated from the available data.

From the available list of words, stop words such as prepositions are removed.

Then these words are ranked and highest ranked words are chosen as keywords.

Keywords that are most unevenly distributed between the source documents are also chosen as keywords and added to the list.

Terms in context of document are identified, pruned from available list and finalized as keywords.

#### **Validation of frames**

Based on prior work it is criticized that researchers make frames on their will , to show it false three statistical techniques are available to measure the capability of frames. Cluster analysis, frame analysis and latent class analysis are the techniques.

### **IV. CONCLUSION**

We have seen different techniques of frame analysis and how it can help in sentiment detection from frame by analyzing keywords from corpora of data.

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