

## Facebook and Twitter Utility for Policymakers

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### **Abstract:**

Social media provides government policy makers with access to citizen attitudes, opinions and positions on issues. Social media holds publicly available information that can help policy developers to better understand how the public feel about policy problems, solutions to policy gaps, lived experiences and values associated with policies, as well as, better articulation of the 'real' problem. This study examines the utility of aspects of Active/Passive models of crowdsourcing for policy makers. To assess this we offer a conceptual model based on Appraisal theory. Results indicated little utility difference between actively and passively gathered data. Facebook is generally more useful for policy makers, as it yielded better data concerning values, lived experiences and problem definition, and clearer articulation of solutions through dialogic language. The implication for policy makers is that while Twitter can identify emotive responses, Facebook offers deeper insights and more nuanced understanding of the community.

*Keywords: active/passive, crowdsourcing, social media*

## Introduction and background

Government policy-makers must consider not only expert advice and scientific data, but also the views of those impacted by decisions, citizens (Linders, 2012). Social media is increasingly recognised as an abundant source of citizen attitudes relating to policy issues (Liu, 2015; Medaglia & Zhu, 2017; Wukich & Mergel, 2017; Loukis, 2018). Policy-makers now have at their disposal unprecedented access to a cultural and informational repository afforded by a social media-centred and digitised public sphere (Castells, 2008). These transformations have seen citizens now expecting to be listened to and to be actively involved in decision making (Linders, 2012; Aitamurto et al., 2017). Citizens increasingly demand that they be treated “not as customers but as partners” (Linders, 2012, p. 446).

The availability of data online and public expectations have influenced policy makers to adopt ‘citizensourcing’. Citizensourcing is similar to crowdsourcing, which draws from the ‘collective wisdom’ (Surowiecki, 2004) of large groups of networked citizens to solve or inform difficult policy problems (Hilgers & Ihl, 2010; Nam, 2012; Charalabidis et al., 2014; Loukis, 2018). One approach to knowledge and sentiment extraction is to apply an Active/Passive citizensourcing framework. Active citizensourcing occurs when the policy maker stimulates a response through channels they control, while Passive refers to comments outside channels of control, wherein the public offers opinion without policy maker stimulus (Androutsopoulou et al., 2018; Loukis & Charalabidis, 2015; Loukis, 2018). However, there is a gap in the literature comparing the characteristics of data collected actively and passively. This study offers a conceptual framework that attempts to better distinguish between Active and Passive data sources and determine their usability in relation to policy making.

## Conceptual Model

Appraisal theory is concerned with a) how text producers (writers or speakers) construe particular authorial identities for themselves, b) how authors align/dis-align themselves with actual or potential respondents, and c) how writers or speakers construct an ideal audience for their texts (Martin & White, 2005). A sub-system of the approach allows for attitudes, including *affect* (e.g. happy, sad, insecure); *judgement* (e.g. courageous, right, capable); and *appreciation* (e.g. simple, unbalanced, valuable). Importantly, for the Active/Passive model, the evaluative language used for the formation of a stance comes directly from an author’s own attitude; which may be expressed explicitly or implicitly. The Appraisal framework sees attitude as “dialogically directed towards aligning the addressee into a community of shared values and belief” (Martin & White, 2005, p. 95). The application of the Appraisal framework can yield rich results in the sphere of public policy since discourse is never completely deprived of the author’s stance, even if this is not stated overtly (Martin & White, 2005). If bias is discernible the framework allows clear indications as to why this is apparent (Martin & White, 2005). The model is assessed here against informational needs of policy makers. Contextual factors include problems with policy, solutions for policy gaps, lived realities for those impacted by policy, competing values and problem framing (Marshall et al., 2017; McNie et al., 2016).

## Methodology

The case at the centre of this study is the potential release of the carp herpes virus into the Murray River (Australia). Carp are an introduced fish species that make up approximately 90% of the biomass in the river, costing the economy billions (Saunders et al., 2010). Currently, the government is investigating use a biological pathogen to eradicate them from Australian inland river systems.

Netnography (2015) was used to identify where the commentary regarding the carp virus was taking place. Further, it was used to determine which platforms were most likely to yield

information useful for policy making. This study extracted community comments over 18 months (Jan 2016 to July 2017) from Facebook (FB) and Twitter (TW), as it was identified that these two platforms accounted for the majority of the community discussion. Facebook and Twitter have also previously been identified as sources of nuanced insight into citizen attitudes toward coexistence with non-human species (Simmons & Mehmet, 2018). Schober et al. (2016) have argued that social media generally, and Twitter specifically, can “potentially represent the larger population’s opinions and experiences” (p. 185). In total over 6700 comments were sourced using R social media package, with Twitter accounting for 1569 and Facebook 5168. Data was manually coded using appraisal frameworks. Results were coded to determine usefulness in line with policy maker needs (five categories of informational needs) and presented using a scale range of 0 for no utility to 5, which equates to maximum utility.

## Results and discussion

Results are segmented by platform and Active/Passive data sources in Table 1.

Table 1: Active/Passive Citizenourcing Value for Policy Makers

Informational Needs	FB Active	FB Passive	TW Active	TW Passive
Number of comments	637 (12.3%)	4531 (87.7%)	395 (25.2%)	1174 (74.8%)
Policy problems (reactions)	5	5	5	4
Policy gaps solutions (alternate solutions)	5	5	2	1
Lived realities	5	4	0	0
Values	5	4	2	1
Problem framing	4	2	0	1

Regardless of data source or platform the public was willing to share their reactions to policy. This importantly, included both positive and negative positions. Language in Facebook was consistently more conversational, dialogic and less extreme in graduation force than Twitter. Facebook dialogue included more exploration of alternate solutions to policy, however, Active Twitter data did demonstrate some insights into alternate solutions.

The table shows that people spent considerably more time in Facebook explaining their experiences (lived realities) and why they felt the way they did (problem framing). Values were also stated more prominently in Facebook, interestingly, often as a reaction to the positions held by those in authority. This dialogic conversational tone is likely influenced by Facebook’s architectural functionality (i.e., its graphical user interface and supported media) (Bossetta, 2018). Importantly, expressions in Twitter often utilised visual aids to express opinion, often humorous/vulgar. This use of multiple modes to communicate is a point of further research. These findings may be influenced by user determined differences or by characteristics inherent to platform and affordances, such as 280 character limits in Twitter. The assessments of utility for Active and Passive data suggested little difference. Future research should explore differences between platforms and Active and Passive citizenourcing more fully.

## Implications for Practice and Theory

Twitter is still a viable option if policy makers wish to take a ‘pulse’ of community sentiment. However, for policy makers with limited time and budget, exploring Facebook comments may be the preferred option. This is especially true if they wish to better understand lived experiences, values and identifying alternate solutions to policy problems, which were covered in greater depth and nuance.

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