Narrowcasting in social media

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Abstract

Narrowcasting is directed to a particular audience via a proprietary equipment and encryption, or by some other discriminatory means. We present an explorative study that evaluates narrowcasting as an approach to sharing in online social media. Targeting a specific group of people enables your message to be reached and connected with the audience you are focusing on. It aims to send messages (text as well as media) to target group for commercial or non-commercial purpose through SMS, social media networking and messenger. We conducted a survey on observation of users regarding facing issue on the social media while communicating to a target person in the group. Our work provides implications for online sharing, suggesting that narrowcasting is an effective strategy for online social platforms. In this platform content will be specifically designed for the target audience. Example: Satellite TV channels are example of broadcasting whereas cable TV channels are type of narrowcasting.

Keywords—narrowcasting; information ; security; Facebook,media

Introduction

Narrowcasting has traditionally been understood as the dissemination of information (usually via Internet, radio, newspaper, or television) to a narrow audience; not to the broader public at-large.

Also called niche marketing or target marketing, narrowcasting involves aiming media messages at specific segments of the public. In this paper we present a study of narrowcasting in the context of online social media.

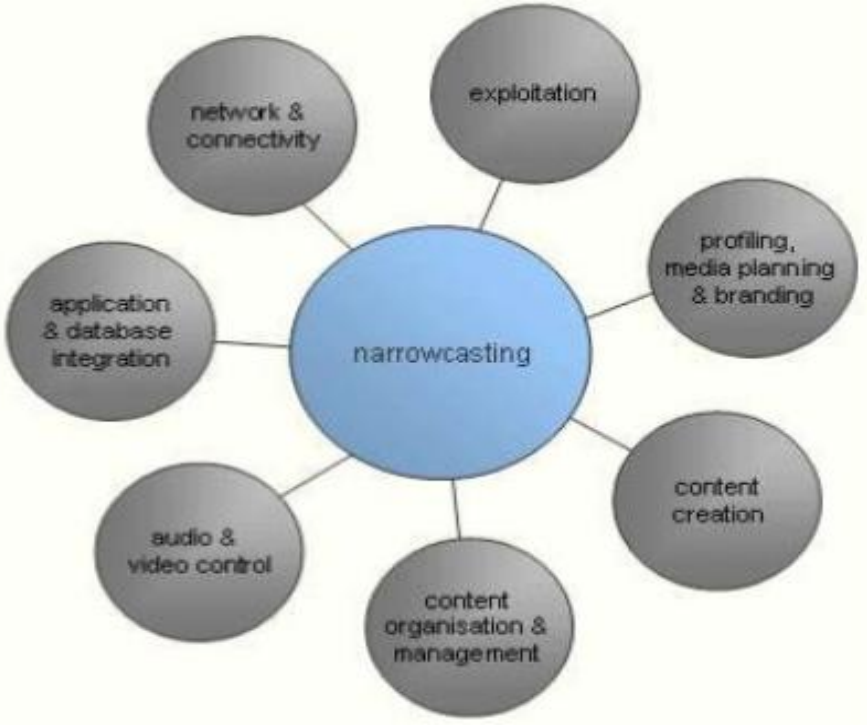
The term "narrowcasting" can also apply to the spread of information to an audience (private or public) which is by nature geographically limited—a group such as office employees, military troops, or conference attendees—and requires a localized dissemination of information from a shared source. It is both a way of conceptualizing information sharing, as well as the set of mechanisms that implement such sharing. Narrowcasting in social media can also be used in the case of traditional media, to disseminate messages to different audiences allowing for higher levels of relevance of content. This is achieved by tweaking each message to match better the audiences' interests and preferences. As such, narrowcasting can also be used as way to ensure that content is only available to specific groups of people. This perception shifts the focus from the tailoring of content to an attempt to restrict content so that only specific people can actually see it. In this sense, we consider narrowcasting as less of a marketing technique and more as a mechanism to increase one's privacy and control when using particularly where users are the producers of information and content, a narrowcasting approach has not been widely adopted and supported even though the technology is available to do so. Adopting a narrowcasting approach to sharing would suggest that users think about targeting segments of their audience, regardless of audience size, while also guaranteeing that only those that the user wants to see the content actually see it.

Existing online practices result in sharing that is typically visible to the entire set of friends of a user, and sometimes to the general public both within and outside the platform. While the broadcasting approach has the benefit of reaching wide audiences, but it poses privacy concerns and risks of oversharing since the shared information can be of personal and may affect the day-to-day lives of users. In a response to these privacy information sharing issuess, social networking sites have gradually sought to develop narrowcasting mechanisms for users to share only with a subset of users in the network. Facebook and Google Plus have attempted to address this issue by allowing users to group their friends and provide the ability to reveal or hide posts from these user-defined groups.

Importance of Narrowcasting

Narrowcasting has been proposed in response to the increase of information shared through social media in recent years and its associated privacy concerns. Over the years, various techniques for grouping people in a social network have been developed, for instance by considering the role of individuals in an attempt to facilitate sharing of content. Furthermore, narrowcasting presents itself as a potential solution to the vastly recognized issue of context collapse in social media by separating one's friends depending on the tie instead of being grouped together under a generic term such as "Friends". Without the proper controls for selective sharing, context collapse can lead to oversharing. Narrowcasting can therefore be used to maintain boundaries between different aspects of one's life in online social media as well as help them engage with differentiated self-presentations based on their audience. In this paper we study the effects of a demographics-driven narrowcasting solution in responseto

the concerns associated with broadcasting on social media.



NARROWCASTING AND PRIVACY ISSUES

Communication technologies are fundamentally changing the way we behave, interact, socialize, and share on a day to day life . [1]This sharing behavior has been shown to depend on:[2]

- norms of appropriateness (what information about persons is appropriate to reveal in a context), and
- norms of distribution (movement of information from one party to another).

Privacy problems arise when information appropriate for one context is inappropriately shared in another. However, judging context in online settings is challenging because users are limited to perceived information flows[2], and therefore our daily sharing behavior ultimately
can lead to privacy concerns.

Most intresting thing in our daily life is online sharing and posting due to human beings' inherent need to publicize their thoughts. Mostly users post about current activity and location. In the early days social networking platforms users primarily used them to stay in touch with existing friends. However, more recently it has been shown that users adopt arbitrary and evolving criteria for accepting friends that they will not directly engage with, and have limited awareness of the amount and detail of personal data provided in their profiles. Many Facebook users befriend other users even if they are weak acquaintances or absolute strangers, something that they would not do in an "offline" environment. While

many users attempt to restrict their profiles, they do not appear to fully appreciate that their level of privacy protection is relative to the number of friends.

In many social networking sites such as Facebook, instagram can have confusing privacy settings mechanisms and default settings which often allow friends of friends of a user to be able to see their content and profile. It is possible that thousands of users may be able to access shared personal information. The combination of human nature, appropriation of online tools, and poor privacy controls leads to situations where users may overshare, or share information that they may regret at some point in the future or sometime creates a serious problem. In summary, it can be argued that privacy issues can arise due to:

- difficulty of judging others profile.
- users' tendency to over share.
- use of arbitrary and evolving criteria for sharing.
- Without accepting the requests, unknown person also share messages.
- Large video of More than 16MB cannot be send.

We argue that these obstacles can effectively be addressed by a narrowcasting approach to online sharing. Narrowcasting requires that users consider context before sharing, inherently tackles oversharing by limiting the number of recipients, and can offer a effecting way to establish and maintain sharing criteria.

REQUIREMENT FOR NARROWCASTING PROTOTYPE

We are interested in identifying the effect of narrowcasting on users' online social sharing behavior. While Facebook has built-in narrowcasting mechanisms, our study has found that users often experience difficulties when trying to divide their Facebook friends into groups[3], totally oblivious to the fact that such a feature already exists in the form of Friends Lists. To minimize bias and increase control during the study, we opted to develop a standalone narrowcasting prototype that integrates with Facebook to enable narrowcasting.

The prototype for our study was designed as a category- driven filter drawing on previous work[4], and allows users to narrowcast based on demographic information. It automatically groups one's friends by demographic attributes: Age, Home Country, Relationship (family and significant other), Current Location, Relationship Status and Gender. Previous work shows that users tend to make decisions on how to share information based on the identity of the recipient rather than on the situation[5]. This behavior was also confirmed in a separate study showing that people decide with whom to share information based on the type of relationship (e.g. significant other, friend, colleague, etc.). Furthermore we draw on work that shows people want to be able to specify groups and basic categories centered on relationships for which they could assign specific privacy settings. This highlights the importance of providing a relationships category (family and significant other separate from rest of friends) in our prototype.

Managing groups of contacts can be a significant burden that worsens with the expansion of one's network (more friends) and the popularity of the social networking website[6]. This is similar to the effect that increased number of applications have on computer systems leading

to users relying on shortcuts. Therefore we designed our prototype to automatically categorize participants' friends, using information in their profile, in order to minimize the workload. Also, although privacy is highly valued, it should not be the users' primary task since making it an explicit and tenuous task could lead to the disregard of the solution[7]. Therefore, the prototype dynamically updates the narrowcasting groups when a change occurs in the user's network (e.g. a friend leaves Facebook, a new friend is added, a friend changes their profile, etc.).

The prototype was designed to facilitate the process of creating a new wall post and choosing to whom to make it visible or invisible based on demographic criteria of the recipients. Previous work has suggested that the default interaction pattern of an application, i.e. to share by default vs. to hide by default (referred to as "optimistic" vs. "pessimistic") has an effect on online sharing[8]. Therefore, rather than pick one pattern over the other, we decided to also investigate the
effects of the default interaction pattern on users' narrowcasting behavior.

METHODOLOGY

Our study suggest that how narrowcasting prototype affects behavior and perceptions in social media, and to draw lessons that can be used to improve privacy and security on these platforms. Particularly, we are interested in studying whether the use of our narrowcasting tool would:

1) Change users' perceptions and practice regarding online sharing.
2) Effect sharing behaviors that ultimately impact privacy.
3) Be adopted differently by different groups of users.
4) Avoid over sharing.
5) Focused sharing can be achieved easily.
6) The perception shifts the focus from the tailoring of content to an attempt to restrict content so that only specific people can actually see it.
7) Shared messages could not be visible to anyone.

CONCLUSION

Our results suggest that narrowcasting can be an effective approach to online social sharing, and in fact it does not seem to affect sharing levels. Therefore, to the extent that it offers benefits in relation to privacy, yet does not hinder sharing, narrowcasting can be a successful approach to online sharing. Our empirical evidence suggests that users find narrowcasting an interesting and engaging way of thinking about sharing.

Our finding that users of an optimistic interaction model narrowcast more frequently can be thought of as a way to nudge users toward more or less sharing. Even though Facebook uses a pessimistic model, and therefore our participants were likely more familiar with this approach, in our study we found that this model resulted in a relative reduction in sharing frequency. This further suggests that the effect we have observed is quite robust.

In summary, narrowcasting in social media has the potential to not only improve the privacy of users, but can also improve the relevance of content to anyone who receives posts. This is a fundamental shift in contrast to how narrowcasting is perceived in traditional media. Hence narrowcasting does no longer need to be just about making sure receivers of content care about it, but also about protecting the senders by minimizing their digital footprint.

Orthogonally to this phenomenon, it can also raise awareness among users and make them think that a certain post might not be appropriate for a certain group of people. This gives inherent value to a narrowcasting platform since it can prevent problems caused by social media over-exposure.

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