Understanding the Impact of Awards on Award Winners and the Community on Reddit

Avinash Tulasi [*], Mainack Mondal [†], Arun Balaji Buduru [*], Ponnurangam Kumaraguru [‡]

Department of Computer Science and Engineering
[*]IIIT, Delhi, [†]IIT, Kharagpur, [‡]IIIT, Hyderabad.
avinasht@iiitd.ac.in, mainack@cse.iitkgp.ac.in, arunb@iiitd.ac.in, pk.guru@iiit.ac.in

Abstract—Non-financial incentives in the form of awards often act as a driver of positive reinforcement and elevation of social status in the offline world, as shown in previous studies. The elevated social status results in people becoming more active, aligning to a change in the communities' expectations. However, the impact in terms of longevity of social influence and community acceptance of leaders of these incentives in the form of awards are not well-understood in the online world. To that end, our work aims to shed light on the impact of these awards on the awardee and the community, with Reddit as an experimental testbed. We specifically focus on three large subreddits with a snapshot of 219K posts and 5.8 million comments contributed by 88K Reddit users (Redditors) who received 14,146 awards. Our work establishes that the behaviour of awardees change statistically significantly for a short time after getting an award; however, the change is ephemeral since the awardees return to their pre-award behaviour within days. Additionally, via a user survey, we identified an extremely interesting long-lasting impact of awards—we found that the community's stance softened towards awardees. In fact the comments written by the same users on awardees' posts (months) before and after receiving an award are different enough that in 75% of the cases the commenters are perceived as different users. We conclude with discussing the implications of our work.

I. INTRODUCTION

Awards are given as incentives in offline and online worlds [10]. Prior work looked into the use of awards in the offline world suggesting their ubiquitous nature [1, 19, 32]. In the offline world, awards serve as tokens of recognition that result in heightened social status [43]. In business settings, volunteering settings, and academic settings awarding has seen a positive correlation with a substantial increase in the performance of individuals [10, 19, 21, 36, 40]. These awards often come with a title like "best employee" or "volunteer of the month" that praise, applaud or appreciate the awardee for their contributions to the organization. Getting an award is closely linked to altruistic behavior.

Online social networking platforms, which are mainstream hangouts in today's world, closely emulate the offline world [37]. These websites also adopt awards, recognition, approval, changes in social status etc., in the form of likes (Facebook [1]), badges (Stack Overflow [2]), hearts (Instagram [3]), and awards

(Reddit [4]). The recognitions are often non-monetary, and they are a result of contributions made by the awardees towards the community they are part of [6, 14]. The majority of the online communities, particularly on Reddit, thrive on the altruistic behavior of the influencers (major content providers, active users) [27, 28, 33]. Reddit awards also follow a *title* associated with them, making the awards closer to their offline counterparts. So far, researchers have looked into the meaning of incentives in online social media (in social media) [17, 39, 44]. However, there is no work on the effect of these awards on the awardee and the community. However, the practical impact of these already-existing awards on online social network users is not well understood. In this work we aim to bridge the gap.

Specifically, we note that awards might have an effect on two sides—First, on the awardee, and second on the community (i.e., users who did not get an award, but view them). In the offline world, while awardees receive an elevated social status, the award givers tend to expect appropriate and community-friendly behavior from the awardees [9]. The effect of awards on community perception has been studied in varied settings [11, 41]—e.g., there is a significant increase in the interest in a movie when the movie wins an Oscar.

To that end, we investigated the effect of awards on different users in the online setting taking Reddit as a testbed. On Reddit, we split the participants (Redditors) in communities (Subreddit) into two groups: 1) users who get an award and 2) users who never got an award. We ask two specific questions:

RQ1: Do receiving incentives (in the form of awards) impact awardee's behavior and engagement in the community? What are the changed factors?

RQ2: Do getting an award result in a changed community perception towards the awardee? How?

To answer these questions, we first hypothesize that award-winning affects the awardee's engagement on the platform, similar to the resulting changes from an elevated social status. To test the hypothesis, we model the engagement of a user based on the text they write (in the form of comments or posts) and the reception they receive (in the form of upvotes, number of comments, etc.). Our data includes three diverse subreddits, containing a total of *88K users*, who made *200K posts* and *5 Million comments*, while exchanging *158 unique*

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[1]https://www.facebook.com/help/171378103323792
[2]https://stackoverflow.com/help/what-are-badges
[3]https://help.instagram.com/459307087443937

[4]https://www.reddit.com/r/help/comments/cxnftb/
can_someone_explain_awards_to_me/

awards, given *14,146 times*. Using this data, we present the following key observations in this paper.

First, we establish that the activity of awardees increases once they make an award-winning post. The increased activity results in the award winners writing shorter posts or comments. We also see that the number of past awards is a significant factor in determining future awards. Moreover, we augment the theories from offline world by Frey [9, 10]. For the first time, we demonstrate using statistical analysis that the heightened activity of awardees in online world decrease within 36 hours; it gradually comes closer to their pre-award behavior over time.

Second, we study the perception changes towards awardees from the perspective of other users using a large-scale user study. We demonstrate that 75% of our participants perceived the same users who commented on an awardee's posts as different people before and after getting an award, whereas only 40% felt the same for non-awardees.

Third, our survey results uncover a distinct difference in the language used towards awardees by non-awardees. User community became more comfortable in their interaction with awardees *after* receiving an award; overall, community's stance softened towards awardees. We now proceed to the related work and then present our dataset and answers to the research questions.

II. RELATED WORK

We discuss the prior work along three broad dimensions: effect of receiving awards on an awardee, changed perception of community towards awardee after getting an award and general motivational mechanisms for Reddit users.
Effect of receiving awards on awardee: Frey's work studied the use of non-monetary awards as incentives [9]. The work found that awards (statistically significantly) motivate people to contribute to the public good. In a similar line, work by Jeffrey [19] discusses the psychological constructs that make employees perform well when given non-monetary awards compared to cash incentives; Wheatcroft extends this idea and suggests that the organizations should consider awards as an important motivational instrument [43]. However, awards might not have a positive or significant effect on awardee on some settingse.g., on the performance of a student [36]. We build on these varied findings of prior works on offline world and investigate the impact of awards in an online community, taking Reddit as a testbed.
Change of social perception towards awardee: Awards can be considered as social recognition which results in a positive feedback mechanism [2, 4, 23]. Specifically, awards might result in recognition from community members and increased influence [5]. Multiple works have studied the effect of social media influencers in marketing products, personality perception, and trust-building in the community [8, 18, 26]—prior work revealed that even well-recognized YouTube influencers strive for community recognition continuously [30]. Overall, these works establish that influencers experience a positive change in social perception towards them [3, 13, 20, 22, 25]

which they can leverage further (e.g., for disseminating crucial information). We build on this work to explore if *awards* might bring this change in social perception for general online users.
Motivational factors for users on Reddit: Prior research also looked into why people engaged in discussions on Reddit, which is a thriving community on discussion boards without much social structure (i.e., devoid of Facebook-like personal profiles or Twitter-like celebrity-centric ecosystem). Recent data-driven studies found that Redditors seek emotional gratification; they need personal satisfaction and entertainment [15, 24, 31, 35] while engaging on the platform — findings from these studies favor positive engagement for prolonged participation in Reddit communities. To that end, our exploration using large-scale data from diverse subreddits revealed how Redditors received this gratification via incentives (i.e., awards). We observe a change in language use, a softened stance, and an increase in focus on community building as the impact of such incentives for Reddit users. With this background, we next present an overview of taxonomy of the incentive ecosystem (including awards) on Reddit; then, we present our methodology to study the behaviour change among awardees and answer our research questions.

III. TAXONOMY OF INCENTIVES ON REDDIT

During our exploration we note that Reddit provides multiple incentives to their users, however these incentives are interconnected. Thus, we first identify the Reddit-incentive schemes, the monetary implications and the interconnections of these incentives in this section.

A. Incentive structure of Reddit

The broader Reddit incentives are upvotes, Karma points, and awards. Coins, a virtual currency of Reddit, enable awarding and offer exclusive privileges to users on the platform.
Upvotes are a generic indicator of positive endorsement towards the Redditor (a Reddit user) who made the post. upvotes are similar to likes on Facebook and hearts on Instagram. Downvotes - an opposite version of upvotes is also present on Reddit, which expresses disagreement towards a Reddit post. A comment or post with enough downvotes gets collapsed from the default view; In contrary, a comment with most upvotes is shown on the top (right after the original post).
Karma: The ratio of upvotes and downvotes for all posts made on a user profile is a key evaluator of a Redditors *Karma*. [5] Karma is an indicator of community-appreciated participation on Reddit. While accumulated upvotes and downvotes are just numeric indicators, accumulated Karma is necessary to make posts on some subreddits (they require a minimum Karma point for the user). Additionally, accumulating Karma means being a well-respected community participant on Reddit [7].
Awards: Alongside upvotes and downvotes, users on Reddit can also give *awards* to fellow Redditors. However, importantly, awards require the Redditors to spend coins, unlike upvotes. Awards have individual names and descriptions attached

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[5]https://reddit.zendesk.com/hc/en-us/articles/204511829-What-is-karma-

to them. For example, "I would like to thank $USER_X$" award. Using awards, the Reddit platform offers Redditors more accessible ways to share complex, insider, well-understood expressions easily. It is essential to note that some awards require Redditors to spend coins.

Coins are the currency of Reddit, and one can buy coins with money (USD, etc.). Other ways of accumulating coins include getting coins from others, being appointed as a subreddit moderator, and being a good community participant who gets many awards with a coin reward. It is important to note that Reddit coins can not be re-converted to money, and a Redditor can only spend coins in specific platform-defined ways. The options to spend coins include buying a membership to the exclusive subreddit "r/lounge", buying ad-free experience or even supporting fellow Redditors by awarding them coins. [6]

B. Relationship between incentives

Intriguingly, these incentives are interrelated—some incentives are a direct derivative of others. Upvotes and comments on a post fetch Karma to original poster accounts (OPs); [7] However, Karma is only useful in making posts on certain subreddits with specific requirements. So, even though Karma, upvotes, and comments are social interaction indicators, they do not give an expendable asset to Redditors. Consequently, they might just have an impact on user behaviour similar to likes on Facebook, having no discernible effect on user engagement and behaviour [29]. Awards, however, are clear indicators of social recognition [34]. They can be bought using offline currency and awarded to the deserving user, working as a clear community-given incentive.

The Economic value of Reddit awards The value of Reddit commerce around awards might be small but not insignificant. A bag of 500 coins on Reddit costs $1.99. In our dataset, we find 158 unique awards, where the most frequent award *Hugz* costs 80 Reddit coins, and it was given 3,317 times. Overall, Redditors spent $13,923.33 to buy awards in our dataset, which is a non-negligible amount. In other words, awards have economic value and have a strong potential to affect user behaviour (for both awardees and general Reddit users). Thus, in this work, we focus on *Reddit awards* and check its impact on Redditors. Note that we report results in this work without delving into the impact of awards with different names (our experiment shows that our takeaways remain the same for individual types of awards) Next, we present the dataset we collected for our investigation.

IV. Data Collection and Description

Reddit is made of topic-based user communities called subreddits. To ensure generalizability of our study, we choose three diverse subreddits with themes spanning debates on personal views (r/cangemyview), asking judgment from random strangers (r/AmItheAsshole), and taking support from the community during a pandemic (r/covid19positive). We collected Reddit posts and award data from these subreddits.

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[6]https://www.reddit.com/coins
[7]https://reddit.zendesk.com/hc/en-us/articles/205926439-Reddiquette

	r/cmv	r/covid19pos	r/AITA
Total Posts	100,633	43,956	74,890
Total Comments	3,197,295	438,861	2,206,118
Total Users	33,960	21,408	33,719
Posts with awards	1,287	1,033	4,099
Total Awards	2,877	1,672	9,597
Total Unique Awards	122	73	98
USD spent on Awards	$8,530.39	$1,515.92	$3,877.02
USD received	$1,049.02	$147.02	$98.60

TABLE I: Overview of our datasets. We see a diverse community behaviour among the three subreddits. r/AITA has more activity in terms of number of comments, awards; but community members spend relatively less in giving away these awards. r/cmv community spends more and they award more USD (in the form of coins) to each other while being moderately active. Note that cost of 500 coins is $1.99.

A. Reddit data collection

We constructed a dataset that contains posts, awards, and comments made on subreddits r/changemyview (also referred in this work as cmv), r/covid19positive, and r/AmItheAsshole (also referred as AITA). We leveraged https://github.com/pushshift/api pushshift API to collect all post ids for these subreddits. Then, we use the Reddit API https://praw.readthedocs.io/en/stable/ to collect actual posts and iteratively collect all the comments made on each post. Finally, we end up with a dataset with a set of user ids, all posts they made, awards (if any) given to the user for a particular post, and all comments on each of their posts. Each post contains metadata like timestamps along with the post text. Note that we take the timestamp of awards given for a post (collected in post metadata) as the timestamp of a post.

B. Data overview

We collected data from a diverse set of three subreddits. We briefly describe our dataset here.

r/changemyview: It is a subreddit to post an opinion and to seek other's perspectives on the issue on the post[8]. The subreddit asks users to engage in conversations with a mindset for conversion rather than debating; subreddit was created on Jan 16, 2013. We use data from the past five years for our study, containing more than 100K posts.

r/covid19positive: A subreddit [9] for people who test positive for covid 19 to discuss their experience, symptoms, long-standing effects along with questions and answers from experience. The subreddit has been active since Mar 14, 2020. We have used the complete data since the inception of the subreddit, which contains more than 45K posts.

r/AmItheAsshole: A subreddit [10] dedicated to discussion on moral dilemmas where each post addresses a real-life scenario, asking the community participants to judge if they were wrong. We collected 74K posts from this subreddit.

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[8]https://www.reddit.com/r/changemyview/
[9]https://www.reddit.com/r/COVID19positive/
[10]https://www.reddit.com/r/AmItheAsshole/

Feature Name	Description
Total awards	number of awards received by the OP until the post
Upvotes	number of upvotes recrived by the OP until the post
Score	Score (a ratio of upvotes and down-votes) of a given post
Controversiality	Controversiality score as given by red-dit.com
Depth	depth of a given comment with respect to the post (Direct comment on a post is at depth 1)
WC (word count)	number of words in a given post / comment (LIWC derived feature)
Clout	Quantitative confidence in a given post (LIWC derived feature)
Authentic	Quantitative measure of hones vs. hedging in text of a given post (LIWC)
Analytic	Quantitative indicator of analytic think-ing expressed the post (LIWC)
ppronn	Use of personal pronouns in a given post (LIWC)

TABLE II: Key features extracted from the data using meta-data of user posts or comments. There are two distinct classes of features, one reflects the community behaviour (e.g., num_comments, total_awards), and the other reflects the choices made by an original poster (OP). E.g., is_submitter, controversiality. We derived the language of posts/comments using LIWC and used cumulative values and means of all community and user features.
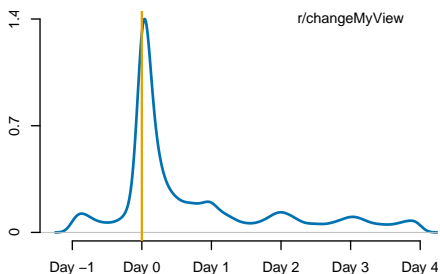

Fig. 1: Aggregate author activity (per timestamp) before and after getting an award on r/cmv. The orange line indicates the timestamp of the award; The ratio of posts made (activity) before and after getting an award peaks within the first few hours of making the post, and the activity normalized to 1 around 36 hours. Similar activity patterns are seen on other subreddits.

We show the basic statistics of our dataset in Table I. The number of unique active users on r/changemyview is 33,960, who made 97.11 posts or comments per user. On the other hand, the number of active users on r/covid19positive is 21,408, with 22.8 activity points per user. r/AITA has 33,719 with 67.64 activity points per user. We see diversity in activity on all three subreddits. With each user associated with more than 60 activity points on these subreddits, we can capture the general user activity patterns. Using this large-scale dataset, we

extensively explore the broad and diverse spectrum of Reddit user behaviour. In our analysis, we find that user activity (the number of posts made per timestamp) is significantly high in the first 36 hours of getting an award and slowly fades away; Figure 1 shows this behaviour for a post.

V. RQ1: CHANGE IN AWARDEE BEHAVIOUR

We now proceed to answer our first research question—what *community-centric*, *author centric* and *content-centric* features change for an awardee after getting an award. In addition to this, we also study the long-term impact of the features.

A. Methodology

In order to estimate the effect of awards on Reddit users (e.g., the change in their posting behaviour), we consider three classes of features—*content-centric* (content of posts and comments), *community centric* (community interactions/decisions), and *author centric* (author behaviour). Content-centric features reflect the sentiment, language used, and topics the subreddit users cover. We derive content-centric features with the use of LIWC library [42]. Community-centric features include upvotes, the total number of awards, comments, depth of comment tree etc. Author-centric features are a reflection of choices made by award-winning Redditors. Further, the author-centric features are central to capturing an award-winning user's behavioural patterns (e.g., # posts, premium user etc.)

Estimating the impact of individual features gives us valu-able insights into the key underlying factors that turn an author into an influencer [12]. To estimate this, we split the activity of an award winner into *before* and *after* time slices; the before time slice consists of all posts made by an awardee before winning an award, and the after time slice contains posts made after winning an award.

Firstly, to identify if there is a difference in user behaviour, we form a hypothesis: *awards do not affect user behaviour*. To examine this hypothesis we first use the multivariate Hotelling's T^2 test [16] to check for significant differences between before and after getting an award ; then, we use the univariate T^2 test [16] to estimate the most affected features due to award (decisive features that define an awardee's behaviour change). Furthermore, as we mentioned in Figure 1, awardees are primarily active within the first 36 hours of get-ting an award, after which their activity gradually normalizes. To capture the distinction well, we use three separate time-duration (before and after getting an award) for the hypothesis testing:

1) **To compare the immediate effect of the winning**: 15 days before getting an award compared with 36 hours after getting an award (-15 days vs. +36 hours).
2) **To compare the gradual normalization of activity**: After 36 hours until 15 days of winning an award compared with 15 days before getting an award (-15 days vs. +36 hours to 15 days).
3) **To capture the complete cycle** : 15 days before getting an award compared with 15 days after getting an award

Time-slice	T^2	F-statistic	p
15 days vs 36 hours	6400.39	55.19	< 0.001
15 days vs *after* 36 hours	3450.23	30.87	< 0.001
15 days vs 15 days	1180.90	9.60	< 0.001

TABLE III: Multivariate paired Hotelling T^2 test results on the three time-slices. There is a statistically significant difference between the awardee features before and after getting an award. Furthermore, decrease in T^2 and F-statistic with time signifies that a decreasing difference.

- to capture the complete cycle of heightened activity to going back to normal activity (-15 days vs. +15 days).

B. Awardee behaviour change after getting awards

We show results from multivariate paired test in III and results from uni-variate Hotelling T^2 in Table IV. At a higher level, the awardees behaviour and interaction did change after getting an award (all differences are significant in Table III). However, the impact of the change is uneven on different features. Specifically, the user-centric and community-centric features dominate the content-centric features—content is the least impactful differentiating factor on users between before or after getting an award. This is possibly because, subreddits are topic-specific, so receiving an award does not affect the content. We make three key observations from our analysis.

The difference between before and after getting an award decrease over time: Table III shows all before award -after award differences are similar. However, a significant decrease in T^2 and F-statistic with time signifies that the difference is decreasing, i.e., gradually, the impact of awards on awardee subsides, and they retract to pre-award behaviour.

Change in engagement with posts in significant: In all three time duration the number of *Upvotes* for all posts changes the most before and after getting an award; meaning, posts/comments made by awardees *after* they get an award tend to have more upvotes; the same is true for all three time-slices. The next key difference is seen in *depth*, which gains place in subsequent time-slices. Movement after the 36-hour mark indicates that awardees are engaging in deeper and repeated conversations once they get an award. The behaviour sustains up to days after getting the award. Furthermore, *controversiality* is impacted very differently as time passes; Controversiality is a platform-provided sign of repeated engagement and a reaction from the community. Higher Controversiality implies community is interested in talking back and checking again on the same thread of conversation[11]. we do not see the feature in the top 10 within 36 hours. However, the feature keeps moving up in the later time period.

Language used in posts change after getting an award: Language-based features derived using LIWC also appear in the most changed features. We note that *WC (word count)* changes position over time, making it a more distinct feature

[11]https://github.com/reddit-archive/reddit/blob/753b17407e9a9dca09558526805922de24133d53/r2/r2/models/builder.py/#L375

15 days vs 36 hours	15 days vs *after* 36 hours	15 days vs 15 days
Upvotes *	Upvotes *	Upvotes *
Score *	Score *	Score *
tot. awards*	Depth *	Depth *
Depth *	tot awards*	tot. awards*
Depth **	i	i
i (pronoun)	Depth **	Depth **
WC (# words)	Authentic	Authentic
Clout	Clout	Clout
Depth	pronoun	Upvotes **
Authentic	Analytic	Score **
Upvotes **	ppron	pronoun
Score **	tot. awards**	Analytic
Analytic	WC	ppron
pronoun	Upvotes **	WC
ppron	Score **	controversiality
posemo	controversiality	posemo
tot. awards**	posemo	tot. awards**

TABLE IV: Univariate Hotelling T^2 results on r/changemyview subreddit. The three *after* time choices show the change in user participation and community perception. The features are sorted by T^2 value. [* : cumulative sum, ** : mean until the post]

in the earlier hours of an award winner's interactions on the platform. Other key features *Authentic, Clout, posemo, negemo* signify a change in the style of language.

After establishing that the awards indeed change awardee behaviour, we ask if receiving awards changes the community's outlook towards the awardees.

VI. RQ2: Change in community behaviour towards awardee

To check if the community's behaviour change toward an awardee in the long term, we took a survey-based approach. To check *community perception* we examined if from an external viewpoint, other Reddit users (i.e., the community) change their behaviour towards the awardee.

A. User Study Design

In our survey, we show the participants three randomly-shuffled pairs of Reddit comments; Then we asked questions about how the participants felt about the comments (including if they feel these comments are made by the same users). In total, we recruited 27 participants to answer questions about a total of 60 comment pairs (2.2 pairs each). Our participants were 18 years or older, from the USA, and had visited Reddit earlier from the crowdsourcing platform prolific app.prolific.co. The survey took around 8 minutes to complete on average, and we compensated each participant with $4.

Survey setup: In this survey description, we familiarized our participants with our context—we referred to the author of a post as Original Poster (OP) and mentioned that we are showing comments made on OP's post. A comment is "well constructed" if the comment presents fact, builds a narrower point with each sentence, the complete coverage of a theme is seen, and overall the comment is Understandable when presented standalone. Furthermore, a comment is "Respectful towards the OP" if the comment is inoffensive, not profane,

contains no personal insults, and overall use generally acceptable language. We also presented examples of different types of comments for exemplification.

With this background, for every randomized comment pair, we asked a few questions to our participants—(i)would you agree or disagree that the Comment 1 was more "respectful" than Comment 2 (five-point Likert scale response) (ii) would you agree or disagree that the Comment 1 was "more respectful" than Comment 2 (five-point Likert scale response) (iii) do you think both the comments were made by same/different user and finally (iv) please briefly explain why do you think Comment 1 and 2 are made by same/different users.

The first question is designed to capture the change in communities' respect towards the awardees; the second question captures the effort put into writing the comments.

In the third and fourth questions, we capture if our participants feel the comments are different enough (e.g., linguistically). Essentially via the last two questions, we want to check if the participants see a change in the attitude of the community towards a user (and thus, the comments posted by same users might look significantly different) before and after getting an award.

Choosing the comment pairs: We chose our comment pairs so that they are written by the same users at two specific times—some comment pairs were for posts from awardees (uploaded before and after getting an award), and other pairs on non-awardees posts. Each comment pairs were spread over time with a gap of *few days, up to a few months* to avoid the effect of particular events. Note that, for each comment of post of an awardee, we chose a non-awardee who has a comment by the same user around the same time and created a pair for non-awardee comment pairs. We also randomly shuffled the order of awardee and non-awardee post and comment pairs.

Quantitative and qualitative analysis plan: For quantitative analysis, we primarily used descriptive statistics to determine if the comments on the posts of awardees look different before and after getting the award (and if comments on non-awardee posts look similar). We also performed qualitative analysis on participants' reasons using open coding and axial coding [38]. We first extracted quotes from the participants' reasoning. Then we built a codebook by checking 10% of the quotes and identified axes on which participants evaluated the comments. Finally, annotators used this codebook to code each participant's quotes. The independent codes of our coders achieved a substantial agreement (Cohen's Kappa $k = 0.71$) Finally, the coders met and resolved the small number of disagreements in coding and assigned final codes.

Codes to express justifications for the same/different commenter label: Overall we identified four axes in our codebook (for analysing why our participants thought two comments might be written by different people) with multiple codes along each axes—(i) Emotional state of the commenter (e.g., aggressive, opinionated well-composed) (ii) Writing style (e.g., use of punctuation, grammatical construction, choice of words) (iii) Content type in the comment (e.g., factual, opinion, short explanation, long text) and (iv) Background and

beliefs expressed in a comment (e.g., political leaning, general belief). The qualitative coding indicated that; to identify if the same Redditor makes both comments in a pair, most participants looked at the comment language, acronyms, backed-up claims, and sentence construction. Mainly, the participants looked at specific features like factual/opinionated nature, writing style, and inclusion of statistics.

B. Results

Community comments changed towards an awardee after getting the award: 75% of our participants identify the authors of comments on an awardee's posts to be different people before and after the award (indicating the comment, though written by the same person, is perceived very differently). On the other hand, only 40% of the participants identify the comment authors on non-awardee's posts as different people. With the qualitative results, we find a significant change in the author's stance *towards an awardee* in one of the four axes we identified during our qualitative coding analysis.

User community became more comfortable in their interaction with awardees Participants felt that comments-before-awards were more formal towards the awardee compared to comments-after. One participant mentioned "[for-comment-before-awards] is made by someone who has a *strong personality*, and has their ideas pretty fixed... [for-comment-after-awards] is much *shorter* and the ideas and opinions are *not* as strongly presented". Note that the same user made both comments. We interpret this observation as a hint toward the phenomenon that the Reddit community generally becomes more agreeable to the awardees with more informal discussion.

Community's stance softened towards awardees Our participants perceived that the comments-before-awards were *more well constructed* with facts than comments-after-awards. One participant noted "In [comment-before-awards] User is *brief* and *straight* to the point with regards to the matter at hand. In [comment-after-awards], the user is *generalizing*", while the same user makes both the comments, we highlight that Redditors show slightly diminished rigor towards award winners. Another notable response was "the person behind[comment-before-awards] *isn't willing to hear anyone* else's views on the bible whilst the person behind [comment-after-awards] is *rather the opposite* and *is willing* to hear other people out." which identifies an increase in tolerance and decrease in the aggression of the Redditors towards awardees after they received an award.

Overall, our results identify that the Reddit communities have become more agreeable and softer in their approach toward award winners. Since we collected these before and after comments months before or after receiving awards, our findings hint that receiving an award might be heavily correlated with being more *influential* in driving discussions over time.

VII. IMPLICATIONS

Intending to identify the influence of incentives on user posting behaviour and the emergence of civil communication

in online social media platforms, we studied awards on Reddit.

Awards help in moderation by incentivizing desirable behaviour in the community: Answer to our first research question reveals how the awards are an expression of different emotions. From positive to sarcastic expressions, Redditors use awards to communicate via emotions and support each other. Also, we have shown that awards are more about social recognition than monetary benefits. In fact, the repercussions of social recognition and the resulting influence on the community are significant. Alongside the social recognition, we saw awardees exhibit a heightened activity *after* they are incentivized, which also results in a positive change in user behaviour (Eg: Detailed comments with facts). However, the effect on individuals is short-lived. Hence, a key finding of our work is that *awards result in a useful and community-friendly change in behaviour*. This finding has far-reaching implications for platform designers in incentivizing online users for helping to moderate the discourse and maintain respect in online discussions.

Societal phenomena in the online world are more ephemeral compared to the offline world: As identified through our work, while online social networks closely follow the principles from the offline world, there is a considerable difference in the longevity of effects. The effects online are more ephemeral, and the productivity boost is very short. The reasons could be the non-existence of a physical token that could be showcased, unlike awards which are only shown along with the comment or post made by the user.

Awards help in making the community welcoming: Awardees are selected by the community as trusted users with whom the community interacts comfortably (Section VI-A). The election, social recognition, and influence change the community around them as Redditors become more casual and less aggressive. As we identify from our work, the triggering point for the change is awards. The incentives, if chosen correctly, can inflict appreciable user behaviour, which is necessary to maintain harmony in online communities.

VIII. LIMITATIONS

In this work, we primarily focus on Reddit. So, some of our findings might not generalize to other platforms. However, our key findings are supported by social impact theory, hinting at external validity. Reddit is not one but a combination of diverse communities as subreddits. Our key results on the behaviour change of awardee and community are likely to hold for other cases, and we see a potential extension here. A limitation of our work is that we focused on only awards as an incentive and did not investigate what other incentives might motivate Reddit users (some even psychological). While we leave this to future work (e.g., via a Reddit user interview study), we also noted that the diversity of awards on Reddit did hint at different use cases and intentions associated with different awards.

IX. CONCLUSION

To conclude, we derive that the impact on community and perception towards awardees changes permanently. So, as a means of building and maintaining harmony in subreddits *awards create a long-term and significant impact on the community* and with the change in interaction patterns and newly found social influence *awards' impact is directly related to the increased respect of awardees*. By combining our findings, the results imply that *awards can help in incentivizing users* around whom conversation tends to be more civil, understanding, and tolerant.

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