

## Introduction

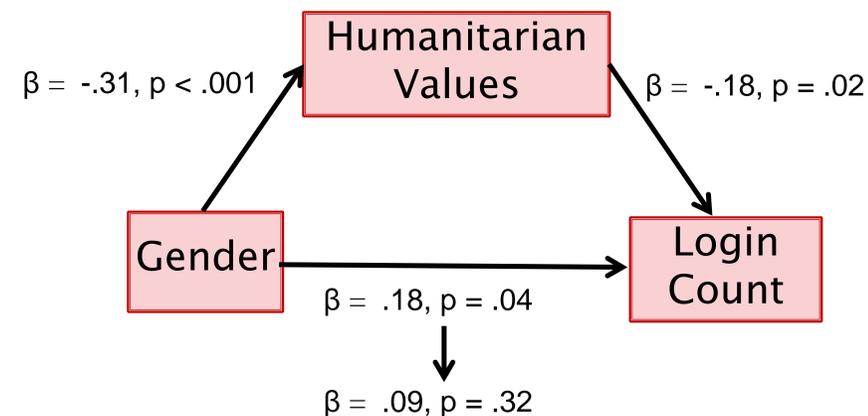
- Online communities have the potential to benefit their users, such as by offering access to peer-provided information (e.g., Yelp or Wikipedia). Broader access to a wide variety of information, such as peer reviews and articles, may lead to a more knowledgeable and better-engaged public (Mossberger, Tolbert, & McNeal, 2008). The core of online communities is often unpaid volunteer contributions and these contributions are usually provided by a small subgroup of dedicated users (Panciera, Halfaker, & Terveen, 2009). A challenge then for these sites is to increase user participation.
- The current research explores how gender differences may be an important predictor of online participation. Previous research (see Brewer & Gardner, 1996) suggests that men and women tend to differentially identify with distinct aspects of the social self (i.e., collective versus relational selves). These differences may influence online behavior. We combine this theory with the functional approach to behavior (Clary, Ridge, Stukas, Snyder, Copeland, Haugen & Miene, 1998), exploring how different volunteer motives for men and women may explain why some users contribute online and others do not. It may be that women have differing motives for volunteering due to their increased relational identification. Women may then participate less in some online settings because their motives are not satisfied.
- In the current research, we explore how gender relates to volunteer motives and online participation. We then test a model in which gender predicts humanitarian motives, such that women report stronger humanitarian motives, which then leads to less engagement in an online environment.

## Method

- To explore these questions, we assessed the new users of MovieLens, a website wherein volunteer users rate movies, receive recommendations, edit movie information, and rate content contributed by others. Upon first login, 1027 new users were invited to complete a short survey, which included a variety of brief psychological measures.
- These users were contacted by email to participate in a follow-up survey six weeks later.
- 133 participants (89 men and 44 women) responded to our follow-up request.
- Participants were asked to list all of their volunteer experiences, complete the Volunteer Functions Inventory (VFI), and answer other questions about their motives for offline volunteering.
- Motives from the VFI included humanitarian values, understanding, personal enhancement, career advancement, social, and ego protective motives.
- We then tracked their online behaviors on MovieLens for six weeks after the second survey.
- Behaviors included basic behaviors, such as visiting the site, rating movies, but also volunteer-like behaviors such as editing a movie, visiting the volunteer center, starting a forum post, and tagging movies.

## Results

- Women were more than twice as likely to report engaging in offline volunteerism compared to men,  $X^2(1, N = 129) = 15.61, p < .001$ .
- Men logged in to MovieLens more frequently  $t(127.36) = 2.14, p = .03$ , had a higher buddy count  $t(130.10) = 2.16, p = 0.03$ , and rated more movies  $t(125.84) = 2.97, p = 0.004$ .
- Men also engaged in more volunteer-like behaviors on Movie Lens, such as tagging a movie with a useful descriptor,  $t(88.03) = 1.98, p = 0.05$ , and visiting the volunteer center,  $t(88) = 3.13, p = .002$ .
- Although not statistically significant, men were more likely to engage in all behaviors on MovieLens.
- Women reported more humanitarian-based and understanding motives for volunteering than men, humanitarian values  $t(126) = 0.92, p < 0.001$  and understanding  $t(126) = 2.44, p = 0.02$ .
- Men and women did not differ on any other of the 4 motives (i.e., enhancement, social, career and protective).
- To help explain these relations, we tested mediational models whereby gender predicted humanitarian values, which mediated the relation between gender and online behaviors. We used a bootstrapping methodology, creating confidence intervals for the mediated effect. Intervals that do not contain 0 are statistically significant (Preacher & Hayes, 2008).
- There was a statistically significant mediated effect from gender through humanitarian values, to impact login count, 95% CI [0.01, 0.31].
- Furthermore, we established that the relation between gender and logging onto MovieLens was completely mediated (Baron & Kenny, 1986) by humanitarian values. When logging in was simultaneously regressed on to humanitarian values and gender, gender no longer predicted login count,  $\beta = .177, p = .04$  to  $\beta = .091, p = .32$ , whereas values remained statistically significant,  $\beta = -.31, p < .001$  to  $\beta = -.18, p = .05$ .
- Using Preacher and Hayes (2008) approach, there were no mediated effects for tagging, 95% CI [-0.08, 0.28], Ratings, 95% CI [-0.10, 0.45], visiting the Volunteer Center, 95% CI [-0.03, 1.20], or buddy count, 95% CI [-0.06, 0.85].



**Test of Mediated Effect (Preacher & Hayes, 2008)**  
 Confidence Interval: Login Count: 95% CI [0.01, 0.31]

## Discussion

- Our findings indicate that although women are more likely to volunteer their time in offline settings, men contributed more in an online setting like MovieLens.
- These findings indicate that women may be less engaged in some online environments compared to men because of their motives. The mediational analyses indicated total mediation from gender to login count through humanitarian-based motives. This suggests that women, because of humanitarian-based motives, are not coming back to MovieLens.
- Although women are more likely to feel humanitarian and volunteer in offline settings, this motive is not translating to the online environment. Our findings suggest women's higher humanitarian-based motives may not be satisfied in an online setting such as MovieLens. Women who want to express humanitarian values may be choosing other activities to fulfill these motivations, causing them to be less interested in sites like MovieLens.
- Given that women are more likely to volunteer offline, a recommendation for web administrators might be to design online environments that are more appealing to humanitarian-minded women. Prior research on volunteerism suggests that people whose experiences fulfill their motivations are more likely to be engaged and volunteer long-term (Clary et al., 1998).
- Future directions may explore how women's relational social identity (Brewer & Gardner, 1996) may factor into motivations to volunteer and online engagement.

## Conclusion

Our research has implications for possible ways to encourage women to contribute online as frequently as they do in offline settings. If online communities better satisfied women's humanitarian-based motives, perhaps there would be an increase in women's engagement with online communities, which in turn could increase their online contributions.

## References

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