
Report title: Summary of research findings from OCAL survey
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***Disclaimer:** All data reported herein and any conclusions drawn are based on preliminary analysis. More in-depth analysis will be conducted at a later stage and published in an appropriate format. We disseminate reports such as this on our own initiative, in order to share some of our early findings with the public or with specific individuals and communities that are relevant to the project. Future analysis may further support the conclusions herein or lead us to review and even revise some of our early findings. However, based on what we know at the time of this writing, we believe it is valuable to share some results, in the hope that our insights may in turn help those that this research concerns, and that they may also send us their feedback. We try to keep the writing relatively simple and as free as possible of academic jargon. Although we have taken several steps to ensure the accuracy of the contents of this document, the report may still contain mistakes, inaccuracies, or omissions. If you suspect such errors, please report them to the principal investigator.*

This is to share some preliminary findings, based on the member survey we conducted on Open Clip Art Library (OCAL). This survey was part of our ongoing research on the motivations behind commons-based peer production as a form of collective action, the specific forms it assumes for different media and communities, as well as its social and individual benefits. All findings herein are based on answers we received from 191 respondents (from Nov 2010 to Jan 2011, with 88 fully completed responses). It is possible that the findings reported here may not represent the average user of OCAL, due to self-selection bias. All the mean values reported below are out of 5. SD stands for Standard Deviation, a measure for how much individual responses deviate from the mean.

Let us begin with some simple descriptive statistics: 42.8% of respondents are new to OCAL, being a member for less than 3 months; 26.2% are senior to OCAL, with a

membership of two years or more. The majority of respondents spent less than 10 minutes per day on OCAL (65.8%). On average, respondents are more often engaged in uploading their work to OCAL and sharing it with others, than interacting with other members.

In summary, we find that respondents experience 3 main gratifications when uploading their clip art to OCAL and sharing it with other members: they have fun, improve their knowledge-seeking skills, and improve their knowledge of graphic design. They also feel that they are autonomous in choosing what to upload and whom to work with in OCAL, and that their opinions matter, even if they may at the same time recognize that the community is imbued with some structure.

Although one of the main reasons respondents join OCAL is simply to have fun, they feel that they become effective contributors when they are also able to demonstrate their expertise through the works they share and when they feel that they are improving their design skills.

But general skills also matter: they feel that OCAL as a whole is a capable community when it is effective in assisting its members improve their general skills, such as learning how to do things that they have not done before. The survey also shows that the respondents hold a positive view of contests that are organized in OCAL.

More details follow in the respective sections below.

Gratifications

When asked about what motivates them to produce and upload their clip art to share with others in OCAL, most respondents feel that it is because uploading clip art and sharing it with others is stimulating (Mean = 3.72, SD = 1.29), fun (Mean = 3.80, SD = 1.26) and satisfying (Mean = 3.83, SD = 1.26). Not surprisingly, the ‘fun factor’ seems to be the biggest reward people experience on the site then. But OCAL is also a good place for learning (Mean = 3.24, SD = 1.17). Respondents identify that OCAL is a good place for them to broaden their knowledge of graphic design (Mean = 3.58, SD = 1.32), and to learn about producing graphic designs with others (Mean = 3.19, SD = 1.38).

One of the more interesting findings is that our respondents feel like OCAL can provide them with some other, broader gratifications which are not limited to graphic design. We call it general skills (Mean = 3.06, SD = 1.16); for example, they find that OCAL can help them learn how to do things which they haven't done before (Mean = 3.49, SD = 1.37). We have some evidence from OCAL and from other online sites and communities where we are conducting similar surveys that the development of these 'general skills' may not be what primarily attracts members to a creative community but may be nevertheless essential in shaping a participant's perception of individual and collective efficacy. Other gratifications (self-expression, recognition, social interaction and coordination, and others) are present, although apparently not as prominent in respondents from OCAL.

Structure of OCAL

Since our project is also interested in finding out what types of community organization develop over time, we asked respondents how they perceive their agency in OCAL (i.e. their ability to influence outcomes that are relevant to them), whether they perceive any imbalance of influence between peers, and, more generally, how they perceive the overall social structure of OCAL. Based on their answers, the mean value of perceived agency is 3.64 (SD = 0.99), indicating that they feel like they have at least some control over what clip art they choose to upload (Mean = 3.89, SD = 1.17), what clip art they choose to reuse (Mean = 4.05, SD = 1.20), or who they choose to work with in OCAL (Mean = 4.45), and that they feel their opinions and actions matter in the community (Mean = 3.67, SD = 1.24). At the same time, they also perceive some imbalance embedded in the community (mean of perceived imbalance = 3.21, SD = 0.97). The perceived imbalance refers to the imbalance in *information flow*, and the imbalance of *members' roles and responsibilities*. Nevertheless, the value for perceived structure in OCAL is low (Mean = 2.79, SD = 1.03), indicating that these respondents feel that OCAL as a whole is not that hierarchical (Mean = 2.58, SD = 1.17) or centralized (Mean = 2.99, SD = 1.19), even if some members may exert more influence than others.

Tenure

Another interesting finding in relation to perceived structure was produced by categorizing respondents into two groups based on their tenure in the community. We observe some significant statistical differences between OCAL senior and junior members (with tenure of one year as the dividing line). Senior members are more likely to perceive higher agency in

OCAL (Mean = 3.86, SD = .93) than junior members (Mean = 3.48, SD = 1.01). Senior members also perceive higher imbalance in OCAL (for senior members, Mean = 3.43, SD = 1.00; for junior members, Mean = 3.04, SD = .92). But when we ask them how they feel about the overall structure, they are less likely to feel that OCAL is hierarchical or centralized (Mean = 2.66, SD = .11 while Mean = 2.88, SD = .95 for junior members), although this difference is not significant, based on our current dataset. What this suggests is that more senior members are likely better at utilizing OCAL resources for their purposes and thus feel more ‘in charge’. Through their tenure with OCAL they have also become more keenly aware of differences in influence, persuasion, or capability between members, though they will not go as far as to say that the organization of OCAL is centralized or hierarchical.

Remix/Reuse

Another interesting question we ask in the survey is about factors that are important to OCAL members in considering works to reuse. The important factors identified by our respondents include: How much I like this work (Mean = 4.14, SD = 1.36); reusability of this work: how readily it lends itself to reuse (Mean = 3.90, SD = 1.26). We expected the personal appeal of a work to be an important factor, but it’s interesting to note how ‘reusability’ also plays a major role. This is a finding that seems to remain consistent across different communities that deal with remix/reuse and, for communities that are based on the ability to share and build on each other’s work, reifies the importance of producing content in forms that are easy to reuse.

Efficacy

The survey also asked respondents how confident they feel about themselves and about OCAL as a whole, in terms of effectively accomplishing set goals. We use self-efficacy and collective efficacy to describe these. From the dataset, the mean value for self-efficacy is 3.74 (SD = 0.88), and the mean value for collective efficacy is 3.71 (SD = 0.88). Self-efficacy means that our respondents are confident to contribute to OCAL by submitting their works (Mean = 4.22, SD = 1.03) as well as making use of available clip art resources in OCAL for their own works (Mean = 4.33, SD = 1.00), and they are also confident about themselves in terms of understanding graphic design terms and ideas in OCAL (Mean = 3.63, SD = 1.20). Moreover, they feel like OCAL, as a whole, is able to create graphic designs that all members are proud of (Mean = 4.10, SD = 1.08), and that it will be able to

attract more members in the future (Mean = 3.96, SD = 1.05). They are confident that all the members in OCAL are able to handle mistakes and setbacks without getting discouraged (Mean = 3.78, SD = 0.96), and they can cooperate in the face of difficulties to improve the quality of their designs (Mean = 3.72, SD = 1.04). They feel that OCAL as a whole can create adequate resources to develop new ideas about graphic design (Mean = 3.78, SD = 1.13) and they can commit themselves to common community goals despite their differences (Mean = 3.71, SD = 1.07).

Contests

One of the last findings we want to report here relates to how survey respondents feel about contests in OCAL, which are usually organized around a specific topic (such as the Free Culture Research Conference logo contest last year). Respondents agree that contests generally increase their motivation to submit their works, though not by a large margin (Mean = 3.29, SD = 1.35) and moreover that contests provide opportunities for them to improve their performance and skills (Mean = 3.25, SD = 1.27). They also feel that contests are a great means of attracting new members to OCAL (Mean = 3.22, SD = 1.10) and these members can become long-term contributors to OCAL (Mean = 3.46, SD = 1.45). Their evaluation of contests is quite positive: contests contribute to OCAL (Mean = 3.96, SD = 1.26); contests are a great means of energizing the entire OCAL (Mean = 3.19, SD = 1.20). They disagree that contests are a needless distraction from their core activities in OCAL (Mean = 2.28, SD = 1.20) and they don't feel that they are constrained by the ways in which contests can set the agenda for the entire OCAL (Mean = 2.75, SD = 1.11). Furthermore, they feel that contests provide them with more opportunities to contribute (Mean = 3.22, SD = 1.18), to express themselves (Mean = 3.19, SD = 1.23), and to promote themselves and their work (Mean = 3.09, SD = 1.17). Overall the evaluation of contests is positive, though not strongly so.

It is also interesting to note that respondents believe that contests introduce more competition in OCAL (Mean = 3.31, SD = 1.28), rather than increase cooperation (Mean = 2.84, SD = 1.25); however they don't think that the cooperative spirit in OCAL can be hurt by contests (Mean = 2.70, SD = 1.26). Participants do believe that contests *can* influence the 'spirit' of OCAL in a significant way (Mean = 3.20, SD = 1.61), but they seem to welcome for the most part the competition (or perhaps other benefits) that contests introduce.

Impact of gratification on efficacy perception

We assumed that when users experience various forms of gratification in OCAL, this will also influence their perception of individual or collective efficacy, because the experience of gratification will act as a psychological reward that the individual may interpret as a signal of individual and perhaps also collective efficacy. We find that the gratification on entertainment need is a significant predictor for both self-efficacy (beta = .29, $p < .05$) and collective efficacy (beta = .25, $p < .05$). This suggests that the more fun a member can have on OCAL, the more she will feel good about her own ability and about OCAL's collective ability to produce and share graphic designs.

But having fun may not be a sufficient indicator of efficacy in itself. Even though respondents do come to OCAL primarily looking for fun, stimulus, and excitement, and these do affect both personal and collective efficacy, they also perceive themselves as more effective graphic designers through the development of general skills (beta = .35, $p < .1$), such as when they feel that OCAL is a good place to learn things about themselves and others, and learn how to collaborate with others online. So, skills also matter, especially general skills and OCAL's ability to provide an effective learning environment.

We also, unsurprisingly, find that experiencing recognition for one's contributions also influences how respondents perceive their individual ability to produce graphic designs (beta = .29, $p < .1$), as well as their perception of OCAL's general ability (beta = .32, $p < .1$).

Conclusion

OCAL presents an interesting case of collaborative production of shared media, somewhat unique in its focus on graphic design and in how it stresses production and the building of a "library" rather than interaction and "community". For the site's members and administrators we believe this report will provide some guidance with respect to what makes OCAL attractive to participants and where more attention may be needed. This is ongoing research, and we will seek to compare the findings in OCAL with those in other communities that also promote various models of commons-based peer production.

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