

# MEASUREMENT OF INDIVIDUAL CONTRIBUTIONS IN LINUX USER GROUP

*Yuan Long, Hasan School of Business, Colorado State University-Pueblo, 2200 Bonforte Blvd., Pueblo, CO 81001, 719-5492816, yoanna.long@colostate-pueblo.edu*

*Leigh Jin, College of Business, San Francisco State University, 1600 Holloway Avenue, San Francisco, CA 94132, 415-3386286, jinlei@sfsu.edu*

## ABSTRACT

The purpose of this study is to develop an integrated approach to measure the individual contributions in an Open Source Software User-Oriented Community (OSSUOC).

Comparing to Open Source Software Developer-Oriented Community (OSSDOC) that is mainly dedicated to develop, support, and maintain a single or multiple open source project(s), OSSUOC is primarily committed to promoting Open Source Software (OSS) advocacy, adoption, education, and outreach. Though OSSDOC is probably the most well known and well studied OSS community, it is worth noting that many OSS local user groups also play important roles in OSS movement. However little research has been done in the area related to OSS use in an OSSUOC. To address this research issue, our study aims to examine community activities, measure individual contributions, and explore factors affecting sustained participation in an OSSUOC.

Linux Users' Group of Davis (LUGOD), which is one of the well-organized LUGs in the bay area consisting of 450 members, was selected as our research site. Data were collected from both mailing-list archives and meeting minutes over a six-year period. Four major community activities were identified in terms of two dimensions concerning the media and the nature of the contribution. Social Network Analysis and Web archive analysis were used to determine core contributors of activities in different categories. Member contributions were then measured based on the intensity, the breadth, and the continuance of participation across activities and years. Moreover, the factors that impact sustained participation were discussed.

The results suggest the importance of a balance between online and offline activities in a Linux User Group. Additionally, offline outreach activities play a more crucial role in stimulating the overall participation of a Linux User Group. The research contributes to the understanding of individual contributions and overall performance in an OSSUOC.