

# Sociability Design Guidelines for the Online Gaming Community: Role Play and Reciprocity

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**Abstract.** This study connects two different perspectives, HCI and CMC, and attempts to develop sociability design guidelines for the online community. According to the literature, the results of previous studies related to sociability are either too general or are lacking in focus. Role play and reciprocity are important factors influencing the dynamics of the online community because they can keep the community to development positively and keep the community in the order. The research questions for this study originated from the theoretical framework which combines role play process ideas of impression management with role play models.

**Keywords:** sociability, role play, reciprocity, design guideline.

## 1 Introduction

This paper begins with a discussion of the importance of social factors in groupware development. As Human Computer Interaction Design has gradually put more emphasis on situation and cultural factors, it may be practical to refer to related research from Computer Mediated Communication (CMC), and apply the results to a study of sociability. After reviewing previous studies of CMC, it is clear that role play and reciprocity have a close relationship to the online community. As a result, the main purpose of this study is to identify how the design of the website can create appropriate role play activities and reciprocity.

Impression management [4] and role play models [1] can complement each other. By integrating these two theories, a set of semi-structured interview questions was developed, while the methodology used in this study was based on case studies and contextual inquiry. Finally, the effects of role play and reciprocity in “Gamer” will be discussed, and the results will be mapped to the results of earlier studies.

## 2 Literature Review

### 2.1 The Importance of Social Factors in the Development of Groupware

The design of groupware is complicated because it needs to consider the interaction within the groups, and different factors in different situations. Grudin (1994) briefly

summarized the origin of groupware and why groupware is successful. In his definition, “groupware” represents software applications which can help groups share documents and information easily. Besides, it also helps groups to accomplish common tasks. Group members have different interests, values, goals, responsibilities and roles and groupware need to coordinate these. It is due to these factors that groupware design is so complicated.

Grudin (1994) considered that social motivation factors are the main issue of groupware study, and that they are also the key to making a groupware design successful. Whether or not groupware is accepted by its target users depends on the common social dynamics. However, these issues are rarely obvious or static. Users’ behavior will be oriented by tradition, personal characteristics and the people around them. Therefore, being aware of personal priorities is also important for the designer.

## **2.2 “Sociability” from the Perspective of CMC**

### **2.2.1 Definitions of Sociability: Broad View vs. Narrow View**

According to the Oxford English dictionary, “sociability” refers to a characteristic of an environment which makes people want to make friends with each other, keep company with others, and communicate with others in a friendly way. This explanation is similar to Rutter and Smith’s. From the perspective of sociology, Rutter and Smith found that the study of sociability began with the paper written by Georg Simmel in 1911. Simmel put emphasis on human interaction rather than personal characteristics. Therefore, Rutter and Smith considered that sociability, according to Simmel, is a “purer” feature. In other words, it is togetherness which is important in our lives, and it is others’ company which makes us happy.

However, when it comes to website design, sociability is defined differently. To speak concretely, sociability is a social strategy and technical structure. It can support the common goals and interaction processes in the online communities [2], [10].

As can be seen from the above discussion, sociability can have both a broad and a narrow definition. The narrow definition may aid and expand the broad definition. However, the definition of sociability in HCI lacks humanity, culture and is also task-oriented. Therefore, it may not satisfy the demands of online community. Consequently, this study redefines sociability as “The sociability-related strategy and technical structure which can promote an intimate relationship, friendly communication process and togetherness in the group, and which supports group collaboration to achieve the common goals”.

### **2.2.2 The Importance of Role Play and Reciprocity**

Role play and reciprocity are essential to group dynamics. Reciprocity is a basic feature of the online community, and it is also the key point that can make a community successful or not [9]. On the other hand, the online community can be managed and controlled effectively by taking advantage of role play [9]. Besides, one of the barriers to the development of the online community is the conflict of benefits, but the concordance of role play will improve this problem [5]. Therefore, a good groupware design which uses the concept of role play should make each member play their role well, and ensure that they understand the values, norms and responsibilities of the community.

As to the influence of roles in games, they not only affect personality but can also be used to predict user’s behavior [6]. In other words, players with different levels, occupations and races will have different personalities. Consequently, if roles in the online community are related to roles in games, the differences between players and members in the online community will decrease. Therefore, we may take advantage of roles in games to help us manage the members’ behavior in the online community.

Roles are created by interaction, and adhere to the norms and values of a community. Besides, role play still needs other resources to support it. Coordinated role play systems will decrease the conflict within the community. As a result, if we can design a website taking into consideration these differences, members in the online community will be able to communicate more efficiently.

### 2.3 Role Play and Reciprocity

#### 2.3.1 Role Categories

Maloney-Krichmar and Preece (2005) applied 27 different membership roles, as identified by Benne and Sheats (1948), to analyze the dynamics of groups. Different perspectives and types of group require different categories of roles [3], [12], [6]. Of the various categories of roles, Benne and Sheats’ (1948) are more complete than those of others. Besides, we can tell the level of reciprocity between members by identifying the role played by each member. Benne and Sheats (1948) clearly identified Group Membership Roles which include three main types: task roles, socio-emotional roles and individualistic roles. Under these three main types are a total of 27 different kinds of roles. Among these roles, are some which are related to the concept of reciprocity, namely information giver, initiator, opinion giver, elaborator, energizer and encourager. The definitions of these roles are given in Figure 2 [3].

Although researchers from different disciplines have discussed the processes and phenomena of role play, there is still a lack of role play theory to support the explanation of these studies. Therefore, in the next section, theater theory [4] and the role play model [1] will be integrated.

**Table 1.** Group Membership Roles as developed by Benne and Sheats (1948)

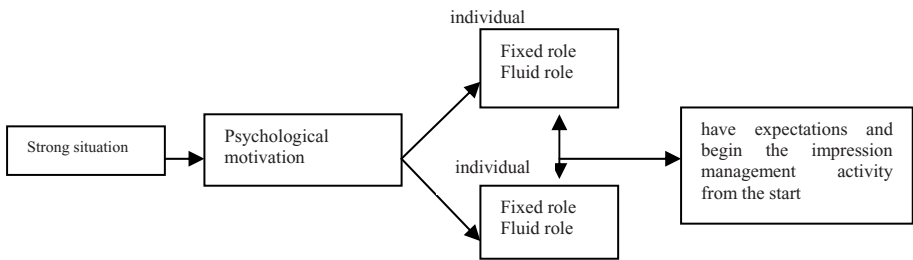
<b>Task Roles</b>	<b>Definitions</b>
Information giver	provides data and facts
Initiator	suggests novel ideas
Opinion giver	provides ideas, values and feelings
Elaborator	provides examples, rehearsal and instruction
Energizer	When members are not willing to discuss, energizer will encourage them and make them keep working.
<b>Socio-Emotional Roles</b>	
Encourager	Encourages creation of ideas and expresses a friendly attitude.

#### 2.3.2 Theoretical Framework: Impression Management and the Role Play Model

One of the ideas in Goffman’s theatre theory (1959) is impression management. According to Goffman’s opinions, role is considered to be the process of growing, and

he argues that a role will finally become a part of our personality. Role is formed from the interaction of interpersonal relationships, and it is also a natural phenomenon. In contrast, Ashforth (2001) studied role from the perspective of organizational management, focusing on efficiency. The role play model he developed provides the motivation for role play. In his linear model, people may finally leave their role and experience role transition. This model can help us understand and analyze the process of role play. However, it ignores other factors such as human interaction and interpersonal relationships.

Although these two theories have some differences, they both deal with situation and role identity. Therefore, they can complement each other and become the framework of this study. For example, Goffman considered that “setting” is the tool to define the situation, while Ashforth considered that roles can steadily develop in a strong situation. Situation refers to furniture, setting, decoration and other background items. It should provide stage scenes and properties to make players play in that environment. A “strong” situation has three characteristics: members understand the same role in the same way; they know what behavior is appropriate; it can provide some functions to support members’ behavior.



**Fig. 1.** Dynamic model of role play

Based on Goffman and Ashforth’s theories, we can synthesize a dynamic model of role playing (Fig.3). That is to say, the situation will be the trigger to provide individuals with the motivation to play the role. Besides, a role has two forms, fixed and fluid. If a role’s inner characteristics can express consistent and continuing images through the outside expression tools, this can be considered as great impression management. To rely on impression management, role play activities can help us maintain or create good social relationships [4].

### 3 Methodology

The methodology used in this study combines the concepts of case study and contextual inquiry. “Gamer” is the largest online game-community in Taiwan, and it applies the metaphors of race and game-related occupations to manage its users. In the recruiting section, this study cooperated with “Gamer”, and the recruiting propaganda was posted on the homepage of its website. The subjects included 8 females and 8 males who are all users of “Gamer”, and who use “Gamer” at least 4 times a month.

The results of the interviews were analyzed using task analysis, and based on the results, four models were defined: artifact model, physical model, sequence model and culture model. Of these, the culture model was the most effective model in the study. The sociability guidelines of this research are compared with past related guidelines in the concluding section of this paper.

During the process of interviewing the users, the interviewees were asked to use a laptop which could connect to the “gamer” website. The interviewer started the interviews according to the semi-structured interview questions and a questionnaire filled out by the interviewee previously. In addition to recording the audio, the operation image of the computer was also recorded using the software “Camtasia Studio 3.0”.

## 4 Results and Analysis

According to cross analysis, both role play and reciprocity were found to affect the development of sociability, and the effect of role play was especially obvious. Besides, it was found that one of the factors which influences reciprocity is related to trust. Moreover, it was also found that people use personal front, such as user’s level and outlook of the role, to judge whether someone is worthy of trust or not. The norms and courtesy that the role should obey also have an influence on others’ willingness to reciprocate. However, “Gamer” does not take advantage of role play to manage its members.

### 4.1 User Profile

In the choice of races, most of the users prefer to be human (56.3%) or fairy (43.8%). The choices of occupation are variable, with six kinds of occupation represented, but most are newcomers (31.3%) or magi (37.5%). Most of the interviewees have used “Gamer” for between 1 and 5 years (68.9%). In the evaluation of the role of reciprocity, the main roles identified were information giver (62%), opinion giver (56.3%) and encourager (62.5%). Overall, the subjects evaluated “Gamer” as a website with characteristics of friendliness (62.6%), goal satisfaction (68.8%) and togetherness (56.3%).

### 4.2 Role Play

According to the results of the interviews, there are three ways in which the sociability of a website can be enhanced, namely by promoting group cooperation, by using communication tools and by building norms to decrease communication problems.

To promote positive group cooperation experiences, both, planned and unplanned activities can be used. Beginners and the webmasters play important roles in both types of activities. Planned cooperation will actively provide topic-related information. However, unplanned cooperation relies on unspoken consensus. This type of cooperation will sometimes be deleted by the webmaster because it has no relationship to the topic. This seems to be the trade-off need to be balanced.

Using communication tools and building up the norms of the roles will decrease communication problems. That is to say, the communication tool themselves are related to sociability. From the perspective of motivation, some subjects use email to avoid conflict. Therefore, using email can often help to reduce paper battles.

Enforcing the norms effectively can make the website operate in concordance. Sometimes people feel impatient because the communication lacks efficiency. Therefore it is important to set up rules and enhance the function of article searches so that the whole website will keep in order.

Maintaining good social relationships and a nice atmosphere can be improved in three ways: by creating chatting topics, by making people feel that they are respected, and by making them feel comfortable. When people share their image designs, they can increase their chatting topics. Unique role image designs will make others feel curious. If they see that another roles' style is similar to theirs, they will feel curious and want to contact those people. When it comes to how to make people feel respected, communication efficiency is important. People will want to talk more when the communication efficiency is good. Besides, users will feel comfortable when their rating points are enhanced, when responses to their articles increase, and when they receive other short messages eg. for their birthday. The ideas for the last two experiences come from BBS and other online game communities. Besides, people will feel especially comfortable in one to one interaction.

### 4.3 Reciprocity

Reciprocity has to achieve community efficiency and confirm user's existence of identity. Some users want to know who has given them GP. GP is presented by number, and users will give GP to others when they appreciate their article. Besides, when users win in some virtual competition held by the website they will gain GP too. However, the system does not satisfy this demand. Therefore, to maintain communication efficiency, "Gamer" sacrifices the existence of its members and takes away the right to communicate with others. Consequently, from the perspective of website design, it is critical to guarantee both reciprocity and communication efficiency. Efficiency can be achieved by using symbols to express support. Besides, people can know who is supporting them, which can also increase the social interaction.

### 4.4 The Problems of "Role Play" in "Gamer"

The subjects identified a number of reasons that make them want to use the functions of career and race. These motivations are: fun, showing off, feeling bored, admiring others' outlook, and building a personal unique style.

The expectation to role can be categorized into "attacking" and "aiding", and it is similar to the expectation to role in the game. However, roles in the website cannot be mapped to roles in the game. Users are influenced by the games they have played before, and their thinking about the roles in "Gamer" is related to the functions and features of their role in the game. When the website can not satisfy the users' expectations, the function of the role in the website does not affect their behavior.

Ambiguity of the roles results in imitation and conflict between the roles and the images. In the world of gaming, there are always some characteristics that everybody likes, but imitation will interrupt the effect of the role play functions in the website. Moreover, if the users are over-focused on their images, the function cannot help them to influence their social relationships. The more blurred the roles are, the more limited the roles' learning and effect will be. These are also problems in "Gamer".

## 5 Conclusion

Figures 5 and 6 summarize the sociability design guidelines developed in this study and the guidelines for sociability which were developed by other researchers in the past. According to the main goals and sub-goals, the tables below show that social strategies and technical structure are related to sociability. Based on the literature, the importance of role play and reciprocity can also be affirmed from different kinds of online communities.

## 6 Future Research Suggestions

Although studies in the past have not shown the relationship between reciprocity and sociability, this study shows that they do influence each other. The users also have two different viewpoints. One of the points of view suggests that giving others help has no relationship with interpersonal relationships. However, some people consider that helping each other can increase the chance of interaction. Therefore, the relationship between reciprocity and sociability still needs further research.

**Table 2.** Summary of the sociability design guidelines related to role play

Main goal	Sub-goal	Social Strategies and Technical Structure	
		Social Strategies	Technical Structure
Group Cooperation	Prolong Group Cooperation	Provide sources to aid the collaboration. Reward users according to their level of contribution.	Establish a reward system. Open space for group activities unrelated to the topic.
			Environment has structure to support group cooperation [1].
		Allow the members to reply in a humorous way [11].	
Reduce communication problems	Prevent negative emotion from spreading.	Take advantage of one to one communication tools such as email.	Add a short message function and place this function in a clear and convenient place.
	Reduce user's feelings of impatience.	Enhance the efficiency of communication and reading.	Empower search functions such as search of full text. Provide an instant messaging service.
	Perform role rules effectively.	Remind users of the rules. Remind users in a definite way with appropriate frequency.	Show the reasons why some users are punished. Implement membership exams and occupation transfer exams.
		Develop values ,norms, and control processes that are agreed upon by all members [10].	

**Table 2.** (Continued)

Build good social relationships	Build an intimate and friendly environment.	Set up some funny and interesting topics on a timely basis.	Use a voting system to help the group make decisions. Group users with a common sense of beauty.
	Create a supportive environment	Users can get others' encouragement effectively, especially through one-to-one communication.	Show the ratings of the points of the personal information file, numbers of the replying articles and congratulation messages.
	Make users feel respected.	Make users reply to new articles or to articles that have had no replies.	Put new articles or articles that have had no replies in an obvious place.
	Make new friends.	Increase chatting topics. Help users to enhance the quality of their articles.	Let users visit others' role images freely. Let users know who supports and encourages them. Provide more visible communication tools [2].

**Table 3.** Summary of the sociability design guidelines related to reciprocity

Main goal	Sub-goals	Social Strategies and Technical Structure	
		Social Strategies	Technical Structure
Increase chances of reciprocity	Create contact chances and motivation.	Put emphasis on communication efficiency and users' sense of being.	Create symbols to show support and encouragement. Users have right to choose to reveal their identity or not.
	Enhance level of trust.	Provide indexes for users to refer to the level of trust of an article or other users.	Use trust-related indexes such as the number of the posted texts, number of log ins, rate of points of the personal information file, outlook of the role, level identified by the website and other special identities such as webmaster and rank in virtual activities.
		Maintain appropriateness of discussion content.	Assign a moderator. People who reply to articles should be approved by the authority or have qualifications [12].
	Enhance willingness of reciprocity.	Strengthen Netiquette.	When users need to post an article asking for help, the system may provide some model sentences.
Develop values, norms and control processes that are agreed on by all members [10].			



The scale of the website may have an important influence on role play activities. From Goffman's perspective (1959), the definition of impression management is the ability and process to manage the image. Ashforth (2001) believes that a strong situation is important. If it is difficult to be impressed by the same person many times, it is also difficult to deal with impression management. In other words, sociability may vary according to the scale of the website.

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