

THE EFFECTS OF ONLINE COMMUNITIES ON ADOLESCENT SELF-ESTEEM

By

B. Janae Phillips

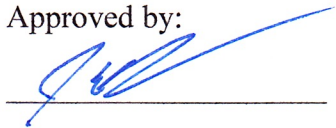
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The Effects of Online Communities on Adolescent Self-Esteem

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Abstract

Because self-esteem is an important factor in many other areas of normative development for adolescents, understanding how it may be impacted by their involvement in online communities is increasingly important as rates of use continue to rise. 79 members of online communities, including gaming, fandom, and special interest communities, completed an online survey that covered general questions about their level of involvement (hours spent weekly, age of first involvement, presence and closeness of online friends), a self-esteem test, and a Big 5 personality test. Results seemed to indicate that there is a “tipping point” for hourly involvement, as those who reported spending more than 25 hours per week engaged in online communities were found to have significantly lower self-esteem scores. This tipping point may be important for both developers of online communities and those who work with youth in considering a healthy balance of involvement in online communities with other activities. There was no significant relationship found between self-esteem and age of first involvement, suggesting that simply becoming engaged in online communities does not have a negative impact on adolescent self-esteem.

The Effects of Online Communities on Adolescent Self Esteem

In the past decade the internet has become an integral part of the average American's life, with 85% of American adults identifying as users. This is even truer for adolescents, 95% of whom use the internet on a regular basis (Pew Research Center, 2012). In 1998, studies emerged that seemed to demonstrate that the internet had a detrimental effect on social life, creating a public perception of virtual participation as a secluded and even damaging activity that persists today (Valkenberg, 2009). But more recent studies consistently show that the internet has been found to have positive outcomes for adolescents in maintaining friendships (Valkenburg, 2009). Indeed, it has been recommended that the internet be viewed as a "...new social environment in which universal adolescent issues such as identity, sexuality, and a sense of self-worth are played out in a virtual world in ways that are both new and old (Greenfield, 2006)." The idea of the internet as a social environment rather than simply a technologic device is certainly a shift in research perspective.

The majority of research conducted to date has focused primarily on the maintenance of already existing relationships using online platforms – what about the number of “strangers” adolescents interact with online? Many adolescents spend time interacting in communities comprised primarily of people they have never met in person, yet little research has been conducted on how these types of interactions impact youth. While the majority of adolescents spend most of their time further developing relationships with already existing friendships forged offline, the interest of this study is in the minority group of adolescents who communicate frequently with individuals met online and how this type of interaction impacts adolescent self-esteem (Gross, 2004).

This study is designed to determine what impact interaction with “strangers” through involvement in online communities has on adolescent self-esteem. Because self-esteem is so closely tied to many other areas of normative psychosocial development – self-concept, social confidence and interactions, depression – it is an important measure in examining long-term impacts of extended involvement in online communities. It is important to be clear that this study focuses on the impact of online communities, rather than the impact of internet use as a whole. These communities are more likely to involve true virtual interaction with others, as opposed to general web surfing. For the purposes of this study, an online community is defined as one comprised primarily of users who met online do not generally interact with each other offline. Finally, this study will examine whether an individual’s tendency for extroversion or introversion will impact the outcomes of their involvement with online communities.

Social Cognitive Theory

In Bandura’s social cognitive theory, people develop not simply by participating in activities directly, but also by observing behavior in others. Because the internet is an increasingly people-oriented and people-populated place, where user-driven content leads to frequent interaction between users, in the very least through observation, social cognitive theory would lead us to believe that this environment will influence the development of its users.

Online Interactions

In 1985 one study deemed “computer moderated communication” (CMC) an “impoverished” communication method because of its lack of traditional communication features – verbal cues, body language, and real-time conversation. The study claimed that CMC would

result in more self-centered and less socially apt individuals (Bargh, 2003). Contrastingly, the theory of hyperpersonal communication asserts that because there are reduced paralingual and contextual clues, it is easier for adolescents to communicate intimately over the internet than it otherwise would be in person. This means that adolescents are more likely to increase the depth and breadth of disclosure to their friends when they are communicating over the internet, providing a strengthening tool for friendships. Boys benefit even more so than girls in this area, as they are more likely to experience difficulty expressing intimate emotions in face-to-face interactions. Additionally, adolescents who were already experiencing social anxiety often prefer internet communication for these reasons (Valkenburg, 2009). Because depth and breadth of sharing is a key component of a healthy friendship, it is no surprise, then, that friendships begin to form online when increased disclosure is present in conversations with strangers, as well (Bargh, 2002).

In Gross' 2004 study, adolescent participants reported that the majority of their time online was spent participating in private communication with friends they had met *offline*. Those adolescents who reported talking to individuals met *online* met these individuals most frequently on public message boards, followed by public chat rooms (2004). One study by Subrahmanyam et al (2004) revealed that online communication with strangers may serve as a safe space for adolescent exploration of sexuality and romantic relationships. In an open online chat room, self-identified adolescents were observed discussing sexual topics (including abortion, pre-marital sex, and contraceptives) on a regular basis. These chats provide a means for participants to discuss these sensitive subjects without fear of social repercussions or embarrassment, because no one in the chat knows who they are. Many youth in these chat rooms do not contribute to the

conversation, but participate as “lurkers”, reading the conversation and therefore still gaining the peer insights (Subrahmanyam, 2004).

Additionally, many youth in these chat rooms explore their personal sexuality by “dating” or even “cybering” (chatting with each other in a sexually explicit way). Adolescents in chat often put forth the self-identifiers of age, sex, and location, and will indicate whether they are looking for a partner (Subrahmanyam et al, 2004). The virtual space allows for adolescents to develop their sexual relationships and ask questions of their peers through a means that is in many ways both safer and less socially embarrassing for teens.

Though we often hear the concern that internet users are pretending to be someone else, this seems to be mostly untrue for adolescents. 49% of participants in Gross’ 2004 study reported never pretending at all, and of those who did report pretending, the most common change to their persona was to make themselves older. It seems that the majority of pretending revolves around exploring aspects of an adolescent’s existing identity that they feel cannot be fully realized offline in their current situation. In a study conducted by Maczewski in 2002, adolescents were interviewed about their experiences on and use of the internet via one on one IM conversations and emails. The adolescents interviewed reported feeling empowered and independent when using the internet. Many of the youth in the study reported participating in activities with strangers revolving around common interests, even so far as political activism. One participant noted that it was a lack of shared interests with other girls in her area that led her to explore relationships on the internet in the first place. She notes that she wasn’t interested in talking about “boys and make up” with other girls in her school, and was instead able to connect with others on the internet, leading her to involvement in political activism. The difference between the youth in Maczewski’s study compared to those in Gross’ 2004 study is that these youth are

not reported to be using the internet to extend existing relationships, but like the youth in Subrahmanyam et al's 2004 study, are filling in gaps in their face to face relationships.

The youth in Maczewski's study also reported being seen by individuals online differently than they were seen in person because of their anonymity. One youth says that others care about who you are "on the inside". He goes on to note that though social stereotypes about Mexicans exist online (users express shock that he is Mexican because his use of language suggests to them that he is well-educated and therefore not Latino), he does not have to deal with this stereotype unless he informs others of his ethnicity, allowing him to experience social interactions without these pre-conceived stereotypes (2002).

In these new virtual communities, there may also be space for adolescents to exercise positions of responsibility they may not otherwise be allowed to offline. One participant in Maczewski's study describes how she became involved in an online community where, when she was between the ages of 13 and 15, she was in charge of moderating chat rooms filled with dozens of people, many of whom were older than her, and managed many large scale online events (2002). From personal experience in virtual communities, including various chat rooms, forums, and gaming sites, this is by no means an unusual occurrence. Because adolescents are the most prevalent demographic in virtual communities, it is almost always acceptable and in fact common practice to allow users under the age of 18 to be in charge of other users and/or events. As the adolescents in the study point out, online interaction is based on the perceived maturity, responsibility, and ability of the user by the content they produce (how they speak, interact, etc.), not by demographic factors (because, after all, there is no way to prove that reported demographic factors are accurate).

In essence, online interactions serve as a “virtual laboratory” for exploring identity – but this only works when those interactions are between individuals who do not know each other offline. These interactions allow individuals to quite literally test drive different identities and roles without the potential social backlash they would experience offline; if an identity feels wrong or simply changes over time, it is much easier to change online than off. Even more likely than the “trying on” of different identities, though, is the discovery and expression of the “true self,” distinct from what most of us would refer to as a “public mask” we often wear in public social situations (Bargh, 2002).

Self Esteem

In general, adolescent self-esteem fluctuates the most in early adolescence, stabilizing and then leveling off in middle and late adolescence, respectively (Steinberg, 2008). These fluctuations are mostly centered around the adolescent’s barometric self-esteem, which may change in response to different experiences, rather than their baseline self-esteem, which remains more constant over the lifespan (Steinberg, 2008).

Adolescent baseline self-esteem is impacted by a host of interpersonal and environmental factors, including social class, birth order, sex, relationships with parents, and academic ability (Steinberg 2008; Walker, 1996). But peer relationships and perceived social status seem to be among the most key factors for barometric self-esteem, especially for girls (Walker, 1986). Adolescents whose friendships are more positive seem to also have more positive constructs of self-worth, social acceptance, and academic achievement, among others, leading to higher self-esteem overall (Keefe, 1996). Simply having friends has been shown to decrease loneliness and increase psychological well-being and social aptitude (Hartup, 1997). However, friendships that

have more negative traits seem to be worse than not having friends at all, leading to lower self-esteem and more negative self-constructs overall (Hartup, 1997; Keefe, 1996).

Self-esteem has been an ongoing piece of discussion of the impacts of internet use, as early studies seemed to indicate that internet users experienced detriment to their self-esteem. Recent studies have shown the opposite, finding a positive impact on self-esteem among internet users and even in a decrease in areas such as loneliness and depression (Shaw, 2002). Simply chatting with peers who are interacted with exclusively online has been shown to increase self-esteem through an increase in perceived social ability (Van Zalk, 2011).

Social Ability and Community Engagement

This connection between self-esteem and perceived social ability and social confidence has been prevalent in multiple studies, and even perceived existence of social support from others (Shaw, 2002). Social isolation, lack of connections, and detriment to offline relationships have been the most feared consequences of internet use for the past decade, but studies increasingly show that these fears are for the most part unfounded (Valkenberg, 2009). Internet users have been shown to be just as likely to interact with offline friends and family as non-internet users, and time spent watching TV or reading newspapers is what is sacrificed in favor of Internet use, not time spent with offline family or friends (Bargh, 2003).

In fact Internet users have been shown to have larger social networks than non-internet users, and though some social networks, such as Facebook, may create many weaker social ties as opposed to few stronger ones, this allows an individual to increase and maintain higher social capital (Bargh, 2003; Steinfield, 2008). But strong ties exist as well: friendships formed online have been shown to be very similar to those formed offline, with comparable depth and breadth

of sharing (Bargh, 2003). These social connections are not limited to individual networks, either: adolescents who contribute to gaming communities are more likely to be involved in both political and civic engagement in their offline communities (Lenhart, 2008). In general, surveys have found that there is a positive correlation between time spent on the internet and involvement in offline community organizations, and likelihood to be engaged in political and service ventures (Bargh, 2003).

Introversion versus Extroversion

Internet use may not have the same impact on all types of personalities, especially in regards to extraversion and introversion. In one study utilizing the Big 5 Personality Test, individuals who tested as introverted on a Big 5 Personality Test were more likely to be frequent internet users. The study also found a correlation between frequency of internet use and lower levels of the Big 5 “agreeableness” trait, suggesting that individuals who do not get along with peers as easily as others may be more likely to seek out internet engagement (Landers, 2006).

This finding seems to support the Social Compensation Hypotheses: essentially the idea that some form of social interaction is better than none at all, and online environments are therefore especially beneficial for individuals who have less opportunities or desire for offline interaction (Van Zalk, 2011). In one study, chatting with peers they had met and communicated with only online seemed to improve self-esteem and perceived social support for individuals with high introversion (Van Zalk, 2011).

Online Communities and Culture

For the purposes of this study, an *online community* will be defined as a community comprised primarily of individuals who do not interact with each other offline (face to face), and who originally met in the virtual sphere. The most common examples of these types of communities are special interest forums (i.e. horse lovers, or motorcycle enthusiasts), fandom forums (i.e. Harry Potter or Doctor Who), and gaming communities (either interaction directly within the game context or on forums attached to the game). John Gardner (1990) identifies eight different aspects that qualify a group as a community, and it can be argued that these types of online communities meet all of them.

First, communities must have a “wholeness incorporating diversity” that allows for individual differences while maintaining a unified whole. Brignall and Van Valey (2008) say that “Online communities offer individuals the ability to locate (at least in a virtual sense) and interact with other players who share a common identity or interests.” Indeed, the very basis of each of the online communities described above is a common, unifying interest. This allows members of these communities a common base.

This baseline commonality easily allows for the development of Gardner’s second aspect, a shared culture (1990). Gardner describes this as including shared norms, values, and a set of stories and legends (1990). Online communities typically exhibit norms unique to each community. For example, the use of “all caps” (ALL CAPS) has varying levels of acceptance across different forums. In some forums it may always be considered yelling or rude, while in others it may sometimes be understood to be in jest or sarcasm. These norms are not usually explicitly stated, and must be learned by observation of more senior members. Online communities also certainly have their own versions of “local legends” and stories, generally

taking the form of inside jokes or references that are integrated into the fabric of the community itself.

Gardner also identifies both good communication and teamwork as community characteristics (1990). Because online communities are based entirely on communication avenues, good communication is essential for creating the community atmosphere. Additionally, many online communities develop their own jargon to facilitate more specialized communication within their group. This strong communication becomes necessary when working to accomplish group tasks, many of which are required for advancement in gaming communities. Even in special interest and fandom communities, teamwork is often utilized in such group tasks as cataloging episodes and interviews or brainstorming solutions to community problems.

Group governance, and participation in that leadership, is perhaps one of the most clearly exercised aspects of online communities (1990). Many online communities elect “moderators” from within their member base, typically based on the member’s interactions within the community and the length of their membership. Most online communities have clear systems of reporting and managing community content and member behavior, and through these volunteer positions members are able to participate directly in leadership roles. Similarly, in many online communities members are able to take leadership roles in the development of new members by taking on the duty of welcoming and assisting the new members integrate into the community. Given titles like “Newbie Helper” (a “newbie” being a common term for a newly joined member), these community members take care to make new members feel welcomed. In gaming communities, part of this process is often connecting new members to resources that teach them how to play the game the most effectively. Given that they are technically in competition with

one another, this aspect in particular shows that these online communities are truly being treated as communities, not just games.

These online communities are not isolated. Many of them develop frequent connections to other communities: affiliations, partnerships, and link exchanges between forums are common, and many communities will even develop organized “networks” of communities with similar interests (i.e. a network of Harry Potter fandom communities). Though they maintain their individual community identities through their unique norms and leadership, they also provide connections to the outside world, fulfilling Gardner’s final aspect of a community (1990).

Since it seems clear that online communities do in fact fulfill the typical aspects of an offline community, how does this particular type of community impact adolescents? Specifically, how does frequent involvement in these communities impact adolescent self-esteem?

Hypotheses

1. Consistent involvement in online communities will have a positive impact on self-esteem.

1 (a). The impact of involvement in online communities on self-esteem will be greater for those who began their involvement during adolescence (ages 13-17).

1 (b). The impact of involvement in online communities on self-esteem will be greater for those who have an introverted personality type.

Methods

Because of the nature of the target population, a quantitative online survey was determined to be the most effective way to reach out to participants. The survey was distributed primarily on message boards for a variety of online games and fandom blogging communities,

and snowball sampling was used to further participants. The survey consisted of three sections: information about the participant's involvement in online communities (years involved, average hours online per week, perceived presence and closeness of online friends), a short-form Big 5 Personality Test, and a short-form Rosenberg Self-Esteem scale.

Responses to the Big 5 test were coded for the questions related to introversion/extroversion to get a total score for extent of extroversion, hereafter referred to as Extroversion Score (see Appendix A). Those whose Extroversion Score was under 4 were coded as primarily Introverted, and those whose score was 4 or over were coded as primarily Extroverted. Responses to the Self-Esteem scale were coded to get a total self-esteem score, hereafter referred to as Self-Esteem Score (see Appendix B). On the question regarding average number of hours spent weekly in online communities, participants were given several ranges of hours up to 35 hours a week, followed by an option to type in a number beyond 35. All of the typed-in responses to this question were either numbers beyond 35 or indicated that the participant felt it exceeded 35 hours but was unable to quantify an exact amount or range. These responses were coded as exceeding 35 hours for all tests.

T-tests were conducted to determine which (if any) factors surrounding involvement in online communities impacted Self-Esteem score, including age of first involvement, years involved, perception of online friends, presence of offline friends, average hours spent in online communities each week, and extent of extroversion.

Results

The study sample size was 79 participants. The average age of participants was 22, with a range of 18 to 47. 87% of participants identified as female, 7.5% as male, and 5% as transgender or other.

Average Hours Spent in Online Communities

Participants reported a range of 1 to over 40 hours spent in online communities per week. An unpaired-samples t-test was conducted to compare the average hours spent per week in online communities to Self-Esteem Score. There was a highly significant difference in the scores for those who reported 18 hours or less ($M=19.8$, $SD=6.7$) and those who reported 19 hours or more ($M=14.2$, $SD=5.36$); $t(4)=4.06$, $p = 0.0001$. In order to determine if there was a “tipping point” for number of hours spent in online communities, further t-tests were conducted on increasingly wider ranges of hours spent. The mean Self-Esteem Score remained significantly higher for those who reported up to 24 hours spent in online communities per week ($M=19.08$, $SD=6.52$) as compared to those who reported 25 or more hours ($M=13.54$, $SD=5.47$); $t(4)=3.82$, $p=0.0003$.

Age of First Involvement

Participants were asked when they first began involvement in online communities and given several ranges to choose from. 10 to 12 years of age was by far the most frequent at 44% of participants, followed by 13 to 15 at 23%, 7 to 9 at 16%, 16 to 18 at 9%, 19 to 21 at 5%, and 22 to 24, 25 to 27, and 28 or older each at 1%. In other words, the vast majority of participants began their involvement in online communities during adolescence or preadolescence, a combined 67% of the sample. An unpaired-samples t-test was conducted to compare the age of first involvement to Self-Esteem Score. There was no difference in the scores for those who reported joining during adolescence or preadolescence ($M=17.05$, $SD=6.8$) and those who reported joining in late adolescence, early adulthood, or adulthood ($M=15.9$, $SD=6.02$); $t(4)=0.578$, $p = 0.994$. Multiple t-tests were run between different groups with no significant difference found between the mean Self-Esteem scores.

Years Involved

Participants reported a range of less than 1 year to more than 15 years of involvement in online communities. An unpaired-samples t-test was conducted to compare the mean Self-Esteem Score of those who have been involved for less than 10 years to those who have been involved for 10 years or more. There was no significant difference in the scores for those who reported less than 10 years ($M=19.8$, $SD=6.7$) and those who reported 10 years or more ($M=14.2$, $SD=5.36$); $t(4)=4.06$, $p = 0.0001$.

Presence of Online Friends

Participants were asked to report whether they had any friends they had met in online communities, and if so, whether or not they considered them close friends. 51 participants reported having close online friends, while 28 reported having either no close online friends or no online friends at all. An unpaired-samples t-test was conducted to compare the presence of close online friends to Self-Esteem Score. There was no significant difference in the scores for those who reported having close friends ($M=17.08$, $SD=6.25$) and those who reported having no online friends or no close online friends ($M=17.19$, $SD=7.53$); $t(4)=0.063$, $p = 0.950$.

Introversion versus Extroversion

Finally, participants whose results indicated they were mostly Introverted were compared to those whose results indicated they were mostly Extroverted. An unpaired-samples t-test was conducted to compare extent of Extroversion Score to Self-Esteem Score. There was no significant difference in the scores for those who were Introverted ($M=15.78$, $SD=6.52$) and those who were Extroverted ($M=20.35$, $SD=6.702$); $t(4)= 2.88$, $p = 0.0051$.

Discussion

The original hypothesis was not supported by the current study, but there are important implications from the lack of significant differences in Self-Esteem Scores. Of every measure that was tested, only hours spent in online communities had any significant relationship to Self-Esteem Score. Up to 24 hours spent over the course of a 7 day period, participants showed a higher average Self-Esteem Score than those who spent 25 or over. Over the course of a 7 day period, 24 hours translates to an average of 3.5 hours per day. This suggests that there is indeed some kind of “tipping point” for involvement in online communities, and that the most successful involvement, at least in the area of self-esteem, is not an exclusive activity. It is likely that it is this type of involvement that would be consistent with previous findings of increased involvement in offline civic and service activities (Lenhart, 2008).

Interestingly, those who reported more than 35 hours per week of involvement either seemed uncomfortable giving a particular amount or felt the amount that they spent was inappropriate (“more/too much”; “way too much time, really”) or seemed unable to quantify a particular amount (“I am in and out of online communities all day every day”). This would seem to suggest that these participants have some level of awareness that the amount of time they spend in online communities may be unhealthy, or that their involvement is so intertwined with their other activities that they are unable to separate it from the rest of their lives.

Hours spent “plugged in” to online communities was a far more significant factor in Self-Esteem Score than age of first involvement, years involved, Extroversion Score, or the presence of either online or offline friends. Those who first joined online communities in adolescence or preadolescence were no more likely to have lower self-esteem than those who joined in adult life, suggesting that simply being involved in online communities does not have any significant

impact on normative development of self-esteem. Additionally, there was no indication that the number of years spent involved had an impact on Self-Esteem Score, suggesting that self-esteem of online community members does not decrease with continued involvement.

This study has several limitations. The data collected can only show a very broad and likely only surface-level representation of self-esteem among participants in online communities; this especially true for capturing the adolescent experience of self-esteem in online communities, since all participants were at least 18 years of age. A more in-depth analysis of self-esteem before and after extended involvement would be ideal, but is difficult to obtain beyond a retrospective study given that involvement in online communities cannot be predicted, and a legitimate involvement experience cannot be realistically synthesized. As online communities continue to play a role in society, there is much room for future research.

Conclusion

Despite its limitations, this study had two particularly interesting findings: first, that there is likely a tipping point for healthy involvement in online communities, and second, that there seems to be little connection between when or for how long individuals are involved in online communities. More importantly still, these two findings are interrelated and important to view as a package when considering healthy involvement in online communities. Based on this and past studies, involvement in online communities in itself is highly unlikely to be detrimental to participants. Far more importantly, as with any interest or activity, participants should consider moderating their involvement with other regular activities. Developers of online communities should be careful to avoid designing activities or involvement opportunities that require participants to spend more than 3 to 4 hours online each day, and may even consider

implementing incentives for participants to balance their involvement (i.e. activities that require unmonitored wait time, automatic log-outs after specified blocks of time, etc.). Those who work with adolescents may make a more positive impact on adolescent development by encouraging a range of activities to coincide with involvement in online communities.

Appendix A

Instructions: for each item, indicate how much you would agree with the statement.

<i>I see myself as:</i>	Disagree strongly	Disagree moderately	Disagree a little	Neither agree nor disagree	Agree a little	Agree moderately	Agree strongly
Extraverted, enthusiastic	1	2	3	4	5	6	7
Critical, quarrelsome	1	2	3	4	5	6	7
Dependable, self-disciplined	1	2	3	4	5	6	7
Open to new experiences, complex	1	2	3	4	5	6	7
Reserved, quiet	1	2	3	4	5	6	7
Anxious, easily upset	1	2	3	4	5	6	7
Sympathetic, warm	1	2	3	4	5	6	7
Disorganized, careless	1	2	3	4	5	6	7
Calm, emotionally stable	1	2	3	4	5	6	7
Conventional, uncreative	1	2	3	4	5	6	7

Appendix B

Instructions: Below is a list of statements dealing with your general feelings about yourself. For each statement, rate how much you agree.

	Strongly Disagree	Disagree	Agree	Strongly Agree
On the whole, I am satisfied with myself.	1	2	3	4
At times, I think I am no good at all.	1	2	3	4
I feel that I have a number of good qualities.	1	2	3	4
I am able to do things as well as most other people.	1	2	3	4
I feel I do not have much to be proud of.	1	2	3	4
I certainly feel useless at times.	1	2	3	4
I feel that I'm a person of worth, at least on an equal plane with others.	1	2	3	4
I wish I could have more respect for myself.	1	2	3	4
All in all, I am inclined to feel that I am a failure.	1	2	3	4
I take a positive attitude toward myself.	1	2	3	4

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