

On Female and Male Avatars: Data from a Web-Based Flirting Community

Brigitte Krenn^{1,2}, Erich Gstrein¹

¹ Smart Agent Technologies,
Research Studios Austria, ARC
Seibersdorf Research GmbH
Vienna, Austria

brigitte.krenn@researchstudio.at

erich.gstrein@researchstudio.at

² Austrian Research Institute for
Artificial Intelligence
Vienna, Austria
brigitte.krenn@ofai.at

ABSTRACT

We present data collected from launches of a web-based, multi-user, avatar-centered flirting and dating community, the Flirtboat, in three different countries (UK, Austria and Croatia). We discuss user activity and persistence to the system relative to avatar gender. We cross-classify avatar gender with avatar age, and gender with personality. Moreover we address user preferences for the looks of their avatars.

1. Introduction

In this contribution we discuss data collected from a multi-user web application, a community building tool where users take part in a dating and flirting environment called Flirtboat. Flirtboat creates an environment where users log on, define and further personalize their individual avatars which function as the user's representatives in the virtual community. Depending on the personalization characteristics of the individual avatars, the system matches avatars and suggests encounters in various scenarios such as "meeting at the pool bar", "excursion to treasure island", etc. As soon as the personal avatar has been created and embarked on the Flirtboat, the avatar becomes part of Flirtboat, a 24 hours a day, 7 days a week world simulation including a story telling engine, and a needs and desires model which drives the avatars. Thus the community life including the user's avatar is active even though the user is offline. When the user logs on to the system (revisits her/his avatar), the avatar reports back to the user, which encounters with other avatars the user's own avatar has made, and asks the user for advice, i.e. whether the avatar should follow an invitation or decline a date, and which actions the avatar should carry out at a given date, cf. section 2.5. This way, users are set in contact with each other by the system via their avatars, and it is the avatar which seeks contact to other avatars, and which accepts or

declines invitations to virtual dates on behalf of the user. As regards the look and feel, the application addresses a young, stylish and outgoing audience. For a more detailed description of the Flirtboat application and the underlying community building tool see [3], [4]. For a more theoretical background see [6].

The data discussed in section 2 stem from three launches of Flirtboat customized for UK, Austria and Croatia. The applications were running with some temporal overlaps approximately from late 2001 to mid 2002. The typical runtime of a single launch was three to six months. Important characteristics of the data we present in the following are that they have been collected under real world conditions as opposed to laboratory conditions, they stem from a large number of users, and were gathered over a longer stretch of time. The Austrian and Croatian data stem from analyses on the running systems. Only for the UK Flirtboat the system log is still available at the time of writing. This is the reason why for some analyses we have only results for individual countries and not a comparison of all three countries.

2. Data Collection

Basically, the systems logs all data generated by users. The data range from statistics on registered users, and logins per day and hour of day to logs of actions carried out by avatars at specific dates and user generated e-mails sent from avatar to avatar. The data are anonymous as the only authentication a user gives to the system is a nickname and password, and an e-mail address.

The data we present in the course of this section comprise

- user attraction and persistence, i.e. the number of registered agents (users) over time, and the number of user visits to their avatars (= logins to the system);

- avatar personalization, i.e. user defined characteristics of their avatars such as gender, age, personality and look;
- avatar actions, i.e. actions selected by a user from a system generated list of possible actions to be carried out at a certain date.

For all our analyses it must be understood that the data on age, gender and personality were attributed by users to their avatars. Thus we have no sure knowledge to which extent the avatar characteristics depict the user characteristics. It is quite possible that users experiment with gender and are not 100% faithful regarding their age. However there are good chances that there is a substantial overlap between user and avatar characteristics, given (i) the goal of the community to flirt and possibly find a partner in real life, (ii) the possibility to freely choose what match one is looking for: male-female, female-female or male-male, (iii) the large numbers of users in the communities, and (iv) the long accompaniment individual users give to their avatars.

The assumption is further supported by informal feedback as well as a survey on user satisfaction based on the first launch of Flirtboat in Austria, indicating that a large number of users understand the avatar to be their virtual representative. However, to be on the safe side, the data on age and gender, as well as personality in the first place must be read as avatar characteristics.

2.1 Male and Female Avatars

To set the initial picture we first describe the overall attraction of users to Flirtboat in terms of “number of registered users” (Figure 1; note: users equal avatars, as one user can only register one avatar, however, we cannot control whether a single user registers to the systems with multiple identifications), and “daily logins” (Figure 2) over the first 90 days of runtime. Then we compare the amount of registration of female and male avatars (Figure 3) to how often male and female avatars were looked after on more than one day (Figure 4).

From Figure 1, we see that the number of registered users is much higher in the UK application of Flirtboat than in the Austrian and Croatian versions. This may be partially due to huge differences in the size of population (UK: ~60 million, AUT: ~8.7 million, CRO: ~4.5 million). Note, the constantly increasing number of logins over time is due to the fact that inactive users are not deregistered. A clearer picture on user interest on the application is given in Figure 2 where those users who did log into the system only on a single day are filtered out. The graphs show that after an initial increase the number of daily logins stabilizes for some periods with a slight tendency to decrease over time. While in terms of daily logins the long term user interest in

the UK and Austria is fairly similar, leveling off at approx. 2000 logins a day, it is smaller in Croatia, leveling off at approximately 1000 logins a day.

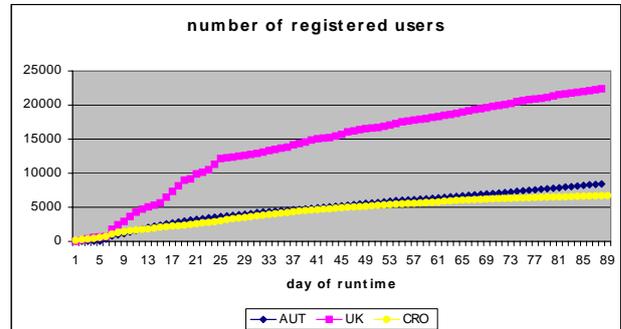


Figure 1: Number of registered users for the first 90 days of runtime of Flirtboat AUT, UK and CRO

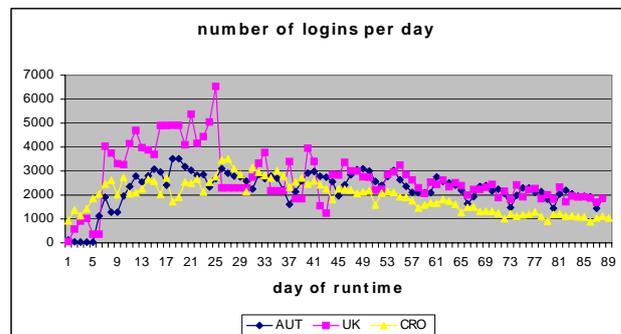


Figure 2: Daily logins for UK Flirtboat, AUT Flirtboat and CRO Flirtboat

Looking at the ratio of female and male registered avatars (Figure 3), we see that only in the Croatian application female avatars outnumber the male ones. This picture however changes when those avatars are filtered out that have not been visited more than on one day (Figure 4). In all three countries the ratio improves in favor of the female avatars, and both in Croatia and the UK the females outnumber the males. In other words, the early dropout of males from the community is higher than that of females.

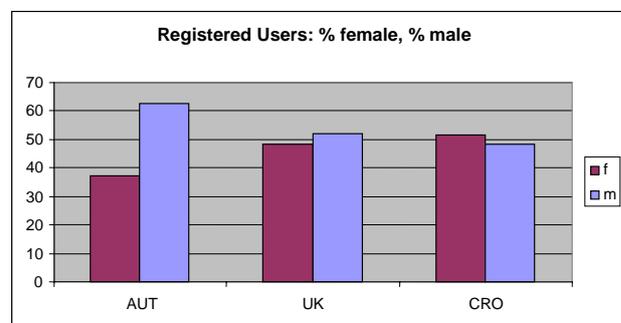


Figure 3: Percentage of registered female and male avatars

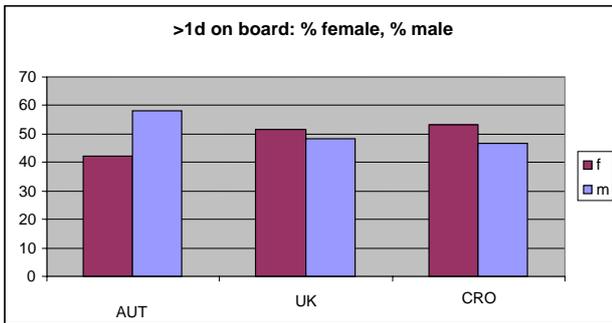


Figure 4: Percentage of female and male avatars that have been taken care of by the user for more than one day

2.2 Avatar Gender and Age

During creation of the avatar, avatar age could be selected from five age groups: ≤ 19 , 20-29, 30-39, 40-49, ≥ 50 . As shown in Figure 5, the distribution of (avatar) gender over (avatar) age groups is comparable for the Flirtboat applications in the UK, Austria and Croatia. In all three launches female avatars clearly outnumber the male ones in the age group ≤ 19 . For all other age groups the situation is reversed, with male avatars outnumbering the female ones. Over proportional representation of young females in the Internet is a phenomenon which is amongst others also known from blog analyses, cf. [5].

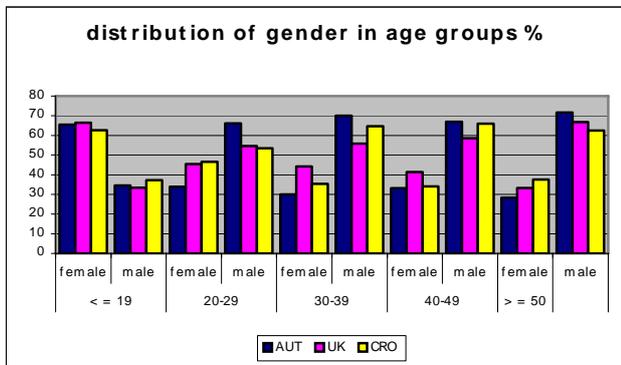


Figure 5: Distribution of gender in age groups

2.3 Avatar Gender and Personality

The personality model underlying the Flirtboat avatars is based on the Myers-Briggs Type Indicator [2], a paper and pencil test inspired by the Jungian model of personality. Avatar personality is modeled along four dimensions: extroversion (E) – introversion (I), intuition (N) – sensing (S), thinking (T) – feeling (F), judgement (J) – perception (P). While extroversion – introversion is the core dimension, the others are considered as modifying functions. For each person one of them is the primary function and another one is secondary or less developed.

For a concise description of the resulting 16 personality types see [1]. The indicators for assigning avatar personalities in Flirtboat were collected via a questionnaire adapted in style to the Flirtboat texts. The questions were posed at the time of creation of the avatar by the user and could be refined by the user during the runtime of the application.

Figure 6 shows the distribution of the most frequent personality types assigned to female and male avatars in the three countries. The figures are based on all registered avatars. Overall we see a stronger convergence between Austria and Croatia than between Austria and the UK or between Croatia and the UK. Roughly we find extrovert Croats and introvert Brits, extrovert Austrian females and introvert Austrian males. In particular, for female avatars the combination ENFJ (extroverted with primary function feeling and secondary function intuiting) has been assigned as most frequent type in AUT Flirtboat (14.37%) and CRO Flirtboat (20.18%). According to [1] ENFJ characterizes people who “are easy speakers ... tend to idealize their friends ... make good parents, but have a tendency to allow themselves to be used.” In the UK sample INFP (introverted feeling with intuiting) is the personality type (13.49%) most frequently assigned to female avatars. Quoting [1]: “These people are idealistic, self-sacrificing, and somewhat cool or reserved. They are very family and home oriented, but don't relax well.”

As regards the data of male avatars, we find more divergence in the most frequently assigned personality types: INFJ (introverted intuiting with feeling) in AUT Flirtboat (10.48%), ISTP (introverted thinking with sensing) in UK Flirtboat (10.35%) and the generally high scoring type ENFJ in CRO Flirtboat (14.68%). Quoting from [1]: The Austrian male avatars “are serious students and workers who really want to contribute. They are private and easily hurt. They make good spouses, but tend to be physically reserved. People often think they are psychic”. Whereas the UK males “are action-oriented and fearless, and crave excitement. They are impulsive and dangerous to stop. They often like tools, instruments, and weapons, and often become technical experts. They are not interested in communications and are often incorrectly diagnosed as dyslexic or hyperactive. They tend to do badly in school.”

Interestingly high convergence was also found with regard to the least frequently assigned personality type. ENTP (extroverted intuiting with thinking) has been assigned least in five of six clusters in total, namely in AUT Flirtboat (1.99% of the male avatars, 3.00% of the female avatars), CRO Flirtboat (2.43% male, 2.41% female), and UK Flirtboat (3.34% female). In [1] it says: “These are lively people, not humdrum or orderly. As mates, they are a little dangerous, especially economically. They are good at

analysis and make good entrepreneurs. They do tend to play at onepmanship.”

Summing up, our data provide evidence that an application such as Flirtboat attracts friends and family loving, home oriented females, and two groups of males, the one group characterizes as friends and family loving, serious workers and good spouses (CRO, AUT), and the other one are impulsive, action and technical oriented individuals (UK). Dashing high achievers, on the contrary, are the group of people least attracted to Flirtboat.

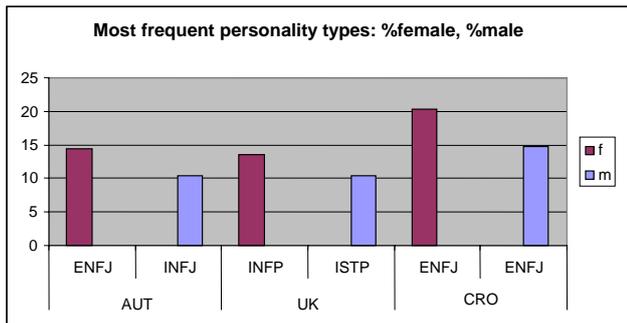


Figure 6: Frequently assigned avatar personalities

2.4 Avatar Looks

For the representation of their avatar the users could select from a choice of 16 2D cartoon-like drawings per gender. In Figure 7 and Figure 8 we depict those two female and male characters respectively that have been most and least frequently selected in the Austrian and the UK version of Flirtboat. As we can see from the pictures, the most obvious difference between the most and least preferred avatar appearances is skin complexion: Pale is out, for females as well as for males.



Figure 7: The two most and least frequently selected female avatar pictures. From left to right: Pic 1, 6, 4, 16



Figure 8: The two most and least frequently selected male avatar pictures. From left to right: Pic 1, 9, 11, 5

2.5 Avatar Actions

A specific feature of user-driven avatar-avatar communication in Flirtboat is that for each proposed date the user may select from a (system generated) list of positive and negative actions one’s own avatar should carry out at the respective date. Examples for actions that are considered as being positive towards the other are: *I gently stroke my date’s hand. I kiss my date passionately. I write a romantic poem. I blow heart-shaped bubbles. I reenact the love scene from Titanic.*, etc. Examples for negative actions are: *I shoot with my water pistol. I wear my “let’s get laid” t-shirt. I bring a goldfish-shaped condom. I throw water bombs. I tell bad jokes.*, etc. The data presented in the following are taken from Flirtboat UK.

From a total of 136 759 actions accomplished by the UK Flirtboat users, female avatars account for 57% and male ones for 43%. The predefined actions could also be accompanied with a free-text message. Here again the data show that female avatars are more active: From a total of 60 287 free-text messages, 52.6% were produced by female avatars. For both, male and female avatars, positive actions by far outnumber negative ones. 91% of the female actions and 92% of the male actions were positive ones. Summing up, the data on avatar actions clearly show that the interaction between the users in the community is largely positive, and that female avatars are more active/communicative.

3. Conclusion

We have presented data on female and male avatars from three launches (in the UK, Austria and Croatia) of a web-based, avatar-centered, multi-user community application for flirting. From the data we have learned that all in all females are more engaged in the community than males. Even though typically more male avatars are registered in the applications (except for the Croatian application), the early dropout rate of males is higher than the one of females. When it comes to communication during virtual dates, again females are more active than males. They significantly more frequently specify and textually embellish actions their avatars should carry out when

dating another avatar. In addition, our data provide further evidence for a widespread finding in Internet usage, namely teenage females is the only group outnumbering males in the Internet. Respective evidence has been found in all three countries, i.e. in the age group of ≤ 19 the number of female avatars almost doubles the number of male avatars. When it comes to personality, in all three countries the females most attracted to Flirtboat characterize as friends and family oriented. This holds also true for male avatars in the Croatian and the Austria Flirtboat, whereas the personality type most frequently assigned to male avatars in UK is characterized as impulsive, action and technical oriented. Dashing high achievers were apparently not interested in Flirtboat. As regards avatar looks, users agree that one's avatar ought to have a good suntan and that being pale is out. There is also a common agreement on sporty dress on a holiday cruise. Evidence on avatar looks comes from Flirtboat UK and Austria.

4. Acknowledgments

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