

Appeared in the journal *Convergence*, 7(3), 83-102, 2001.

The Turing Game **Exploring Identity in an Online Environment**

Joshua Berman and Amy S. Bruckman¹

Abstract: Do men and women behave differently online? Can you tell how old someone is, or determine their race or national origin based on how they communicate on the internet? Issues of personal identity affect how we relate to others in everyday life, both online and offline. However, identity in this new medium is still poorly understood by internet users.

An online environment, The Turing Game, helps internet users to explore these issues. 11,158 people used it over a one-year period. Players from 81 countries on all seven continents used the game to learn about issues of identity and diversity online through direct experience. We studied these interactions through logfile analysis, participant observation and qualitative interviewing. In this paper, we present an indepth discussion of a single evening in the environment. Our primary goal is to show how internet users learn about identity in this environment. Identity was once a concept reflected on primarily by scholars, but is increasingly a subject of fascination and concern for members of the general public. What concerns about identity do people bring to such a game? What are they curious about, and what do they find surprising? Is it possible to support a kind of philosophical play that promotes reflection by participants?

Introduction

Online communication is becoming an increasingly important part of how we as societies learn, work, and play every day.² Do men and women behave differently online? Can you tell how old someone is, or determine their race or national origin based on how they communicate and interact with others on the Internet? Issues of personal identity affect how we relate to others. However, identity in the online world is still poorly understood – both by the general public and scholars. As the internet becomes a central part of everyday life, these questions continue to rise in importance.

Introduction to The Turing Game

We have created a game and related resources to help us explore and teach about issues of identity online. In this environment, The Turing Game, a panel of people all pretend to be a member of some cultural group, such as women. Some of the panelists, who are women, are instructed to try to prove that fact to their audience. Others are men, trying to masquerade as women. An audience of diverse gender tries to discover who the imposters are, by asking questions and analysing the panel members' answers. The sample question and answer below is taken from a game where the panelists were claiming to be women:

QUESTION: Describe your last really bad haircut.

PENNY³: I had it layered and I got a perm. Since my hair is wavy, it was Annie style.

WENDY: Sophomore year, decided to cut it really short, and I looked like a little boy. My boyfriend was very disturbed.

Audience members vote about who they think is telling the truth. Each audience member can assign a score on a numeric scale from zero to ten, where ten means the audience member believes the panelist is a member of the cultural group. Panelists' real identities are revealed at the end of the game. In the above example Penny is actually female and Wendy is male.

Games can be about aspects of gender, race, or any other cultural marker of the users' choice. After each game is played, a complete log of the game is posted to the World Wide Web for reflection by the participants and others.

The Turing Game is designed to help those who use the internet in everyday life to better understand identity online. This is done by allowing internet users to 'try on' roles online that may or may not match their offline identity. In this process, there is a negotiation, a slippage, going on between the role intended and received. Other participants in The Turing Game assess the gap between intention and result. In an online setting such as The Turing Game, the set of roles that an actor can take is considerably more diverse than in traditional interaction. In addition, The Turing Game

is designed to encourage both role-takers and assessors to reflect on their experience, and what it means about identity online. At the end of each game, participants reveal their real identities and discuss who was fooled and why.

To give the reader a feeling what playing The Turing Game is like, we relate a story. In an early test of The Turing Game, one of the authors (Bruckman) pretended to be a man. She began the game feeling confident. Based on her self-image as a sophisticated urbanite and student of gender theory, she felt sure she could pass as a man with little difficulty. To her surprise, the audience immediately identified her as an imposter. 'It's not what you said, it's how you said it', commented one audience member after the game was over. Bruckman typically uses long descriptive sentences with many adjectives, which in contemporary American culture is typically perceived as a feminine style. After the game she commented, 'I didn't realise I was so "fem". I don't think of myself as a "typical girl", but I guess in speaking style I am.' For Bruckman, the experience was a revelation. She had read much of the literature on men's and women's styles, but to experience directly how people react to her personal style brought a new depth of understanding. The Turing Game was designed from a constructivist, learning-by-doing perspective⁴ with the goal of bringing this sort of learning through direct experience to internet users.

While this anecdote shows the environment functioning as we the designers intended, in the case study that follows not all participants' experiences are so successful. Furthermore, it is methodologically challenging to assess the degree of reflection promoted. In this paper, we use a complementary set of research methods borrowed from anthropology, psychology, and computer science to begin to explore, first, the extent to which the game is successful at promoting reflection, and second, what we can begin to learn about identity online and off from the game and how it is played.

The Turing Game was released on the internet on 22 July 1999 as a free, downloadable application <<http://www.cc.gatech.edu/elc/turing>>. Users connect to a central server, and join a virtual lobby. In this lobby, they talk with other Turing Game users, and organise games. One of the people logged on then chooses a topic, starts a game, and becomes the moderator. The moderator for that game handles the flow of the game once it starts, as an emcee does for a game show. For this study, we examined data for one calendar year from the initial release on 22 July 1999 through to 22 July 2000. In that period, there were 11,158 players from all seven continents. Participants played 103

different types of games of their own design from race and gender to age and national origin.

The Turing Game was played 2,212 times. Some games were serious, some were emotional, and some were comic. By quantitative and qualitative analyses of these experiences, we have learned about the game and the issues it raises.

Data collection

Following the verification of informed consent, each user joining the game was asked to self-report basic demographic information, including gender and age. In addition, each user had to provide a valid email address.

A central server, owned and operated by the experimenters, captured every interaction each user had with the system – logging on, discussion in the general lobby, game play and game creation. All aspects of these interactions were time stamped and recorded for the period from 22 July 1999 to that same date one year later.

Throughout the year, feedback and observation from users was actively solicited. This was solicited within the game, on the research website, and through discussion and announcement mailing lists. This feedback was used to develop the game and to help understand the user experience.

For a deeper general understanding of the game and its members, 17 users were contacted by e-mail for follow-up interviews. These users were not chosen using probabilistic methods, but deliberately chosen to represent specific types of users.⁵ Six interviews were conducted with core users, who had played many games. In addition, five interviews were done with subjects who had played very few games. They were interviewed using qualitative, clinical-style telephone interviews, which were recorded.⁶

As researchers, we were active participants in the environment. One or both of us were involved in more than 6 per cent (139 of 2212) of games, and spent significant additional amounts of time observing and participating the social interactions in other parts of the system. We have used these participant-observer ethnographic-style methods to add to our understanding.

Methods

In this article, we describe in detail a game played shortly before midnight⁷ on an evening late in 1999, and its implications. This particular game was not chosen randomly. It was selected as a representative positive example of an interesting and successful game that involved a variety of different types of Turing Game players. Nothing unusual or especially dramatic took place – it was a fairly typical game.

Everything each user saw and typed on The Turing Game that night has been recorded and analysed. Each participant and audience member was contacted for follow-up interviews, regardless of whether they had been interviewed before. These new, additional interviews were conducted nine to ten months after the game was played. Of the ten players involved, nine responded to these further researcher inquiries, made after the general interviews described above. These players completed more telephone interviews and answered additional questions via e-mail with the authors.

Methodologically, studying this online medium has interesting properties. We have in some respects more and in others less data than is available in a traditional ethnography. On the one hand, the participants could communicate only through the computer, and every keystroke was recorded. Their communication was reduced to bits of information on a computer network, and we have a comprehensive, objective record of that communication. On the other hand, we cannot see their faces or hear comments made out loud. Moving from factual quotation of the written record to understanding the significance of what took place is necessarily an interpretive act. Where the written record is insufficient to move from fact to interpretation, that record has been supplemented with telephone interviews and e-mail exchanges with the participants.

This case study examines what took place that evening in detail, with particular emphasis on those aspects of the game with implications for identity online. By analysing the backgrounds, motivations and experiences of the participants that evening, and the game's impact on them, we can better understand how participants are helped by this environment to reflect on identity online.

Introducing the first participant

In September of 1999, Caitlin Davis was a 31-year-old woman who worked out of her home as a technical writer. She first heard about The Turing Game from her sister, who had read about it in an email newsletter about technology:

[She] sent me the article [about The Turing Game], and I sent her questions. [Interviewer asks what kinds of questions]. Girls, how you could find a girl ... I thought I had figured it out [...] It seemed like fun. I really wasn't that interested honestly in all the rest.

She registered on 15 September and logged on for the first time that evening.

I met [two regular users] that night [...] I don't remember what we talked about. I played twice, I think Mel moderated one [...] but, no, I don't know. I got hooked, I guess. I stayed up 'til two or three.

Over the next few weeks, she became a regular. On for several hours a day, she was one of the core of committed individuals who make this type of environment work:⁸ (Kim, 2000):

I would leave it up at home, At night ... I guess everyone just got used to me, someone needed to be there to help the new people. [...] For some reason, I was there a lot, I guess ...

By late December, she had been a participant in 68 games, organising 13 of them. Only the researchers had moderated more. DancingKing, another regular, describes Caitlin's role in The Turing Game:

I think if she was here, I'd have to marry her, right? She is a very special person. She doesn't mind all of us crazy and annoying. She has class. She keeps us mature. She is the whole thing for me ... When it's all annoying I look for her. She kept us going.

Caitlin doesn't recall why she connected to The Turing Game on that specific evening, but she does recall the season:

That Christmas was horrible [...] The game was an excuse not to do other things. I think I was on every night. I was probably just lonely and bored. Wait, that sounds horrible. I actually was having fun with it, I was just spending a lot of time there.

She logged in that evening at 9.06pm. She found several other regulars in the virtual lobby, and a few new names she didn't recognise. Each one who participated in the game will be introduced separately as they join. The log of the evening shows that she spent much of the next two hours gossiping with Crash, a Turing Game friend, in the lobby. They interacted on a purely social level, without referencing the game at all, except to gossip about the researchers themselves. Caitlin comments:

I know we should have been playing, we just knew each other by then. We had a lot to say [...] We played later, didn't we?

The actual start of a game was prompted by two events. First, a new user calling him/herself Butch logged on. Caitlin recalls that the possibility of 'fresh meat', as one regular calls new users, made a game sound more interesting. Also, Kate, another regular, arrived without time to chat, wanting to play quickly before putting her daughter to bed. After a quick hello to others in the room, Kate cut right to the chase, asking directly if someone would start a game.

At this point, two decisions had to be made. The first is what type of game to play, and the second is who will moderate the game, choosing the panelists and questions, and controlling the flow of the game.

In the sample question and answer given from The Turing Game, the panelists were claiming to be women. This is an example of what we call a gender game. Instructions were provided to all users on how they could make their own game types. The users took advantage of this feature, and played 103 types of games over the course of the year.

The first game played on 22 July 1999 was a game in which the panelists all claimed to be women. Throughout the entire year, gender games were consistently the most popular. Overall, they accounted for 973 of the 2,212 games played (44 per cent). As DancingKing explains:

I did the chat thing and all. Rooms all over and every time that a woman there ... is there ... I wonder whether it's a woman or not. I mean, it's not ... Not ever. [laughs] No it's fun to be that woman and to pick them ... pick them out when they aren't women and they tell you. So I like the women games better ... there's more meat to them.

Many users reported that gender games in general seemed to have a staying power, and a depth, that other game types couldn't match. In Caitlin's words:

We keep going to the gender game ... As we get better, get smarter, get ... it's the one type of game which keeps up with us. We reverse the reverse of the reverse, and by the end we play the stuffing out that game.

In addition, the moderator this evening, Crash, was specifically interested in these types of games.

The story of Crash

Crash, a 37-year-old banker, is a Turing Game player for whom gender is almost always salient. She is a male to female post-operative transgendered person. Many of her interactions offline are affected by the fact that her gender doesn't fit into traditional categories.

I think people say there are boys and girls and nothing else. I don't look like a boy, and I don't always look that much like a girl. I think people wish they could check me off in a box, and they can't. I can't check it, and they can't either.

Online, she feels that she can be free to be a woman, without drawing unwanted attention.

I – unless I’m in a tran chat room or something – I think people assume I’m either a boy or a girl. I may not always convince them I’m a girl, but they don’t then think, oh, I’m a tran. I think they don’t know that we [transgendered people] are there online, and that’s just fine.

It was Crash’s difficult relationship with gender that brought her to The Turing Game in the first place:

I read the site and I wanted to play so badly I was like, 'it's my life!' I wanted to like, when I tell people who I am, I see my sex has changed but my gender is all woman, and I can see they don't understand. It's complex, my friend, and I just knew that people would see it was a chance to see for real whether I was a woman when you took the biology out of it.

The therapeutic value of roleplay has long been recognised.⁹ Analysts have shown that online environments are uniquely powerful places for working through issues of identity in this way.¹⁰ Crash, presented with these theories, agrees:

I’m good at being a woman online. I think my voice is right. It helps to be good, to be treated like a woman, sometimes. I can’t do my voice well, you know? Some girls have it high, some don’t try, some whisper. I, well, you can hear me, I sound faggy. I think online I don’t have to worry about it, and I’m good at being a woman, and being good I get the kind of affection, attention, I deserve. I’m getting better at being who I am, so I guess being good is good.

At the time this game was played, Crash had only told a few Turing Game users about her gender history, preferring to identify herself as female:

People ask my gender, and it's woman, so I'm not lying, just telling them what they ask. Caitlin knows, she knows everything about everyone. I just can't lie to her. But I don't offer it. I'm not like that.

Caitlin reported to the interviewer that she hadn't shared Crash's secret, and all of the other users interviewed who knew Crash thought that she was female. Despite not being willing to put herself out as an example of the varieties of gender, Crash reports that her primary goal in playing The Turing Game was educating others about gender. To this end, she liked to moderate, and has always moderated gender games:

I always mod, when people aren't sick of me. I control the flow that way, I can make the good questions ... go through. I can make games deep and fun and racy

Crash started a new gender game – male, where the participants would all claim to be men, and was joined in the newly created space by nine other players. She chose the first three people who volunteered to become subjects. The subjects are the participants who claim to be men, and the rest of the participants become responsible for generating questions and analysing the subjects' answers.

The subjects introduce themselves

The game begins with a free form question to the subjects, which says simply, 'Introduce yourself'. The subjects' responses are shown below, along with the names they chose for the game when asked to 'choose a name that you think a man would choose'.¹¹ In The Turing Game lobby, each member has a permanent pseudonym which allows members to get to know one another. However, each time a participant enters a game room, s/he is given the opportunity to chose a new temporary pseudonym appropriate for that game.

Brian	hello
Alan	I'm 6' 3" Blk hr, 220 lbs
Warren	hello, Go Seminoles

One of these people was a 48-year-old woman, Fran, who had chosen the name 'Alan' to play the game. It was her very first time playing, and she was nervous:

Everyone, everyone knew each other. I just wasn't even sure [what] I was supposed to be doing, and I was on the stage. I just introduced myself like in a chat room.

Fran was looking for a different kind of interaction that night than Crash:

Okay, I mean, don't hate me. I'm a flirt online. I just thought it would be fun, that everyone would just be chatty. I really didn't care about identity then. I was just looking for someone fun and smart to chat with.

Confronted by the request for introduction, she was confused, and thought it better to get that out front. Subjects don't get to see each other's answers until they have entered their own, so she had no example to guide her response.

Some players consider the introduction an important part of the game. One experienced player, a man who has been a subject in more than a dozen gender games, explains:

The scores are set in the beginning. Whatever other players tell you, you know from the first words, and everything else is in that voice. So if I think he's a boy then he's a boy from the beginning to the end. So my introduction when I do it is always really long for a girl and short for a boy. It's important.

The other two subjects had considerably more experience, and their introductions reflected this fact. Roger, who had chosen the name Warren for this game, described himself as he would to a host on a game show. This was his fourth time as a panelist in a gender game. Jenny, a 20-year-old female, tried to assume the identity of her boyfriend, Brian, a tactic that had been successful on the other occasion when she was a subject in a 'find the real men' game.

More introductions

As moderator of the game, Crash had tremendous control over its shape, tone, and even quality. As one user explained, '[The moderator] writes, directs, and stars in the show'. In this case, Crash decided to exert her power by extending the introduction phase of the game, with another general-purpose question, and a more specific request for basic information:

Crash	all right men, tell us about yourselves ...
Alan	I'm a newbie – go easy on me
Brian	5'11" dark hair, dark skin, glasses, 205 lbs
Warren	I am 34 years old with a family. I am a football fanactic ...
Crash	age, marrital status, occupation ...
Brian	24, married, a dishwahser for a restaurant did install kitchens before i got laid off this year
Alan	53 yo, divorced, deliver radiation therapy for a pharmaceutical co.
Warren	I design compressors for pressure washers ... the other two are above. I am 5'10" and 185 lbs with brown hair and green eyre
Crash	what are your hobbies or interests
Brian	i roller blade often, huge steeler fan, i also bowl
Warren	I water ski and have recently taken up diving
Alan	Sports, playing – watching – betting

In reality, Roger, who calls himself Warren for this game, doesn't water ski, and doesn't dive. Warren is, for all intents and purposes, homebound. He joined The Turing Game largely to find educated conversation with someone outside his immediate family:

I wouldn't like to think of myself as desperate, but I'm an educated person. I don't know how long it's been since I've had an educated conversation with someone. The Turing Game was interesting, an interesting way to talk to people where it wouldn't be the kids having cyber[sex] with one another. I mean, sometimes, there are those people at [The Turing Game] too, but not as many. And I'm the one who keeps coming back, so it's smart enough for me.

Even though he came initially for the companionship, he became interested in the game, and the issues it raised:

I've got to hand it to [the researchers]. [They] have quite a game there. To be honest, I didn't think there was anything there. But I played, and I couldn't stop. It's quite addictive. I'm not sure what makes it so interesting, but I keep playing. Maybe it's that I really, sometimes, I can tell what, sometimes, what people are, and I wonder why. And I wonder what I do that shows them who I am too. Anyway, it's good fun, but it's a little disturbing too. In a good way, for sure.

After some initial explorations of ways to play The Turing Game, Roger, by the time of this game, had decided to try to maximise his score in any game he was in. As he explained, 'That's the only way it worked for me'. His strategy in games where the participants were claiming to be men, such as this one, was to 'be the man I would be if I could'. When asked whether he thought this policy worked better than honesty, Roger responded as follows:

For sure, I tried to be honest first. I didn't understand that people didn't always get it. And besides, it is [...] none of their business. I, anyway, I try to be the person I think of when I'm most myself. So I'm not home, you know, I'm out, and I'm doing these things I'll be doing when I don't [have other

responsibilities]. It seems that people think that's more manly than being in my house twenty-four hours a day. Go figure.

After Roger and the rest gave these extended introductions, it was time for the questions proper to begin.

First question and answers

Upon entering the room, Caitlin had 'totally randomly' chosen the name Eric. Although she volunteered to be a subject, she was too late, and had to content herself with asking questions.

The first question chosen came from her, and she in turn found it on a fan-created Turing Game website containing hundreds of possible questions for the game.¹² When asked how she chooses questions to ask, she gives the following explanation:

I generally let other people ask questions. [...] If nobody's doing it, though, I'll come up with some. I choose them off of [the fan-created website]. I like questions that don't have right answers. You can tell, I mean I can tell, from how long an answer is, too, so I'll choose a question that has an option to be long or not.

Her first question is about romance. Caitlin reports that this subject is not an unusual choice in gender games:

I mean, come on, it's all about sex, right? We are what we eat? I have a man, I'm not looking to make new friends, but that's what we want to know about each other. It's always about who you would want to be with. It's fun, like a risqué game or something. So, it's not an unusual thing at all that gender is about sex.

Eric	tell us about what would make a perfect mate for you ...
Warren	Good physical condition, intelligent, and a love for children. And i already found her.
Brian	long curly hair, big tits, not an airhead and loves to have sex
Alan	A woman who is interested in what I do, but has interests and a life of her own.

Scoring the first question – the importance of stereotype

Follow up interviews were conducted nine to ten months after the game was played. None of the people contacted remembered the game without prompting. However, once presented with the transcript of the game, almost everybody remembered the first question, and Brian’s answer. At the time the question was asked, no subject’s score had moved out of the exact middle between woman (zero) and man (ten). After Brian’s answer, her score, averaged over all of the audience, became a 3.2. Only two audience members had not immediately lowered their score. Brian recalls her answer, and its effect on the audience:

I swear that’s what [my boyfriend] would have said. And I hadn’t even noticed the ratings, and then mine is just dropping. It would pause, and then drop again. And I wanted to change my answer, and redo it, start again, but there was no way to redo it. I just, I guess I just decided to go with it, and see if I could save it. It looks horrible to read it, but if you heard him say it, you’d just think, ‘What a guy thing to say’. It didn’t work, but I wasn’t trying to be stupid or anything.

Joseph, a regular player from a European city, dropped his score for Brian immediately to zero:

It is not a thing a man would say. Women think we say those things, but we don't. It is aggravating. It is obviously a woman. I know it now, and I knew it then.

Caitlin, on the other hand, raised Brian's score by one point:

I guess I thought that a woman wouldn't be that simple. That only a boy wouldn't be afraid to be such a boy. I overthought it, but seriously, it really does sound like it must be a guy.

Stereotypes play a central role in The Turing Game, especially in games about gender. Another user talks about the stereotypes inherent in question choices:

The girl games are about crying, and the boy games are about cars. At least they are with newbies, but I guess I don't always play that way. It's just that gender is mostly about the stereotypical things, about how I react to clothes and men and things. So the game is too. It should be, I guess I mean. The things that make us stereotypes or not.

In any event, most of the six audience members reacted strongly to Brian's answer, and none of them changed the scores of any other subject. The game continued.

Brian's score plummets

Christm as	what is more important in a woman you would date, looks or personality? why?
Brian	i like a good mixture of both ... cant be a dog or a bitch (-1.7) ¹³
Warren	What no middle ground? If I had to pick one it would have to be personality. A date based on looks would be shallow on my part (+0.3)
Alan	It's a package isn't it? I guess I want both and I don't think that's wrong. The thing is that I don't mean I need a model in looks or a Rosie O'Donnell personality chick (+1)

Crash recalled growing trepidation about Brian:

Sometimes when someone starts to lose, especially someone new, they can totally freak. I mean, they can't hurt anyone, but they can bust things up. [...] Brian up to this point looks like one of those people. Trying to pick a fight.

Caitlin thought the answer was more emotional. She whispered her belief to Crash, 'Wowzie. Do you think Brian signed on immediately after she got dumped?' Crash responded with an appreciation of the joke, 'LOL'.¹⁴ Caitlin reconstructed her reasoning in a follow-up interview:

That's right, I thought at this point Brian was a woman. Brian wasn't just a stereotype of an idiotic man, he was a specific idiotic man. Which made me think he was an ex of the person playing him. The bitterness was off the charts. Which would be a woman. Real jerks don't act like real jerks. Only the women they fuck with see them for the jerk they are.

Goffman and others recognise the possibility that role-play can be an aggressive act.¹⁵ However, Brian maintains that the answer 'sounds like [her boyfriend]'. The game continued, with a question another question from Caitlin, called Eric in the game.

Alan's success

Eric	How do you approach someone you are interested in
Brian	i am not shy ... i go up to them and ask for a number, the i take the conversation from there (+1.2)
Alan	I starts small. I like to talk to people, people like to talk to me (+1.7)
Warren	How did I, you mean? We work together, so the match was arranged by chance. It took me six months to ask her out though. I was nervous asking someone from work out. (No change)

With this question, Alan took the lead, beginning to be most strongly identified as male. Scores eventually would indicate almost all of the audience members were completely convinced that Alan was a man. Recall that Alan was played by a woman named Fran. Fran recalls her strategy for producing her answers:

Alan is the man I want to meet. I thought about what I wanted to hear, and said that. He's Mr. Wit, but straightforward too. [The Turing Game] players were right. [...] He may not really exist, but he's definitely a man.

DK, an audience member, still believes that Alan was actually a man:

I mean, he said he was a woman in the end, but he was lying, he was man. [Interviewer asks why DK believes this]. Come on, it's all there. He's sort of a jerk, but sensitive too. He always has a definite answer. That's the thing that gives it away, he doesn't need to think about anything. And it's all short, except for [one]. Come on. I pegged him right away.

Caitlin was similarly fooled:

She did a good job. The answers are all right on target. They answer the question. She always answered quickly. She almost always starts her answers with a sentence fragment like she's too busy to use grammar. That's the kind of shortcut that screams out male for me.

Brian recovers

DK, a man who says that men 'talk about sex different that girls', asked the next question:

DK	be honest, does it matter to you if a woman's boobs are 'real'? why/why not?
Brian	yeah it does, i like the real thing ... real toys, not pretend ones (+1.2)
Warren	I cannot imagine someone wanting to change their appearance that much. I understand it is done, but why not ask me why don't I get a penile extension. (No change)
Alan	That is funny. I don't know. Guess it would depend on the person they're attached to. I wouldn't hold it against them or maybe I would (ha). (+1.0)

With this question, and the one before, Brian's score began to turn around. Audience members who had initially decided that Brian was definitely a female playing out a macho stereotype began to doubt that assumption. DK explains:

It's two hundred percent consistency. Men aren't all alike, but they don't change in the middle of a game. Brian looks at the start like a parody of a man, some girl's stupid something. But, you see, if it was a woman, she would have changed when her score hit the crapper, right? He didn't change because he

couldn't change. He didn't care if he got a zero, he was what he was. So each time he talked, why didn't he get different? Because he's one thing, a man, not like me, but a man. Got it? Each time it was more obvious. And it was one voice, too, so that makes it easier.

Warren and the rest of the game

The game continued, with Alan continuing to present the most successful male image, and Brian making up for his early losses. Warren's score continued to stay right in the middle. His attempts to create a persona of himself, only better, left the audience unimpressed. Caitlin explains:

It was the typical chat thing. You can see the lies begin to flake off. It's fast. The problem is that when they lie like that, I can't tell if they're lying about being a man, or just lying about being the man they say they are. So I left them right in the middle.

Warren, when asked about this, denies that he was being deceptive:

I wasn't lying. That's the thing. For sure. It's not where I am now, but that's not my fault, right? I answered as I am, not any different than that. So I guess my score was from the others being so good. People assume there must be at least one woman, and they assumed it was me, right? It's not like it's a huge insult to my manhood. It just means that I'm not macho. Big deal, right? Sometimes I lose, but it's the judges, not me.

The game continued, with five more questions asked about dating, physical comfort with other men, honesty, and fears. The scoring trends continued, with Alan continuing to effectively convince others of his manhood, Brian recovering his credibility, and Warren staying close to where he started, not convincing anybody either way.

The end of the game

With one final imperative to 'vote!', Crash ended the game 22 minutes after she started it. At this time, all the subjects and audience members get to see the final scores. Recall

that a ten would mean that every audience member was absolutely convinced that the subject was male.

Alan	9.66 / 10
Brian	6.00 / 10
Warren	5.17 / 10

At this point, the subjects rejoin the audience, and everyone can discuss the game together. The software instructs the subjects to 'reveal their true gender', but it is up to the group to interpret and enforce this idea. This is intentionally designed, so as to capture the negotiation of identity inherent in this one 'honest' part of The Turing Game communication. In this case, Alan and Brian are actually women, and Warren is a man. Their confessions are socially mediated, with the audience soliciting information about strategies, and the subjects responding to the game.

Brian	damn you go alan
Crash	all right guys, fess up
Warren	I'm a guy
Brian	female as they come ... however i quoted my hubby word for word
Crash	is he there?
Brian	nope just knoe him
Crash	Ok
Alan	Thanks, folks. As we were talking I was putting my son to bed, so it was difficult, as a girl to respond

Eric	I did that once with Mike, and failed miserably. He was here
Brian	i didnt mean quote exactly
Eric	You are female? Cool
Eric	fooled me good.
Rose	nice job "alan"
Crash	i thought alan was f, but that she did a good job
Alan	I think I answered honestly and the questions were good
Crash	i didn't think either of the others were f
Brian	Woooooooooo
Crash	sorry brina
Brian	Lol
Crash	Brian
DK	Good game folks
Brian	hey thats ok i was going for that effect
Brian	Lol
Brian	see you guys in the lobby
Alan	Thanks for this baptism under fire. Now I understand how it works
Eric	great!
Alan	See you again, I hope. This is bye for real this time

Here we see a limitation of the current design of The Turing Game: discussion after the game varies in quality. Further research is needed to determine how we can promote

deeper reflection while not spoiling the fun, playful atmosphere. Our interviews indicate that significant reflection on the part of participants does take place; however, some or even most of that reflection may be triggered by the interviews themselves. It is likely that regulars who return to play the game again and again do develop a richer understanding of identity both online and off. It is less clear what impact the game has on casual players who only participate in a few games. Addressing that question systematically remains a topic for future work.

Conclusions

The ten people involved in this game are from five different time zones. None of them have ever met face-to-face. They have had no opportunity for what Goffman calls 'stage setting' and Stone calls 'appearance management'. They did not know, at least accurately, the gender of their fellow participants, let alone other 'sets of social relations that seem persistently to differentiate the conduct of all members'.¹⁶ Yet, it is apparent that they have successfully interacted and created a joint performance of a social ritual, involving friendship, group participation, competition and growth. What did this game mean to them? What were they doing? We explored these questions in our interviews with each participant. It is worth revisiting those answers now.

Warren reported that he was acting as his ideal self. He was being the man that he hopes to be, and seeing how society reacted to it. Alan was also exploring an ideal, not of herself, but of the man she would like to meet. Brian was 'being' her boyfriend, simultaneously testing her understanding of him and seeing how others react to him. Audience members similarly brought their own experiences to bear. DK was looking to test his skills at picking out gender imposters, since he spends a lot of time in chat rooms. Caitlin, who initially came to The Turing Game to explore whether you could tell men from women online, was by the time of this game one of the regulars whom the environment revolved around.¹⁷ She stayed and played that night for social interaction and conversation among friends. Two audience members were graduate students in communications and philosophy from different European universities. They joined the game out of academic interest. Even though one of them was completely silent, he continually adjusted scores for all of the subjects. In his own words, he was 'totally into it'. One person was playing out of curiosity about their own ability to spot imposters online, stopping at The Turing Game for their first and only game. The final audience member, a 44-year-old woman, didn't respond to our requests for follow-up

interviews. Finally, Crash, the moderator of the game, was there to 'show the masses that they don't really know anything about gender'.

It may seem that the subjects are drawing different meanings from the game, but they are in fact all doing a similar thing. They are, as Turkle wrote, 'trying on' other identities. Many theorists have written about this process of trying on, or role-taking. In this process, there is a negotiation, a slippage, going on between the role intended and perceived. Other participants in the setting assess the gap between intention and result, and their feedback may inform the actor's performance. In the case of The Turing Game, they also get a chance to explore their ability at discovering and exploring these gaps.

Online, the set of roles that an actor can take is considerably more diverse than in traditional interaction. For example, two of our panelists are taking roles across gender lines. In traditional interaction, slippages in appearance would obscure more subtle slippages in discourse and attitudes. Online, these come in to play. The fact that these cultural boundaries, nearly impermeable in traditional discourse, are now at least apparently easy to cross online has made crossing them an intriguing new experience, and even gamelike.

The Turing Game makes this crossing accessible and socially acceptable to any who use the internet. More importantly, it makes the process of role-taking, and especially the gap between intended and perceived roles, visible. In doing this, it allows role-takers and observers to reflect on the roles and boundaries themselves.

Notes

¹ A team of programmers at Georgia Institute of Technology has developed The Turing Game, and they deserve much of the credit for its success. Rob Kooper, Jason Elliott, Juergen Pabel all contributed greatly. In addition, Yuan-Heng Steve Hsu did much of the graphic design work. The Turing Game is supported by a grant from Microsoft Research, and by the National Science Foundation (GVU HCI Traineeship Program). Special thanks are due to Linda Stone, Steven Drucker, Dan Fay, and Craig Cumberland at Microsoft. IBM, Intel, Neometron, Ricoh, and the National Science Foundation CAREER Program also provide support for research in the Electronic Learning Communities (ELC) Group. For more information, please visit <http://www.cc.gatech.edu/elc>

²B. Wellman and M. Gulia, 'Net Surfers Don't Ride Alone: Virtual Community as Community' in *Networks in the Global Village*, ed. B. Wellman (Boulder, CO: Westview Press, 1999).

³ Real names, user-selected online pseudonyms, and other identifying characteristics of participants have been changed to protect their privacy.

⁴S. Papert, *Mindstorms* (New York, NY: Basic Books, 1980).

⁵T. Cook and D. Campbell, *Quasi-Experimentation: Design and Analysis Issues for Field Settings* (New York, NY: Houghton-Mifflin, 1979).

⁶I. Seidman, *Interviewing as Qualitative Research: Second Edition* (New York, NY: Teachers College Press, 1998).

⁷ All times are EST. Where a user's time difference with this area was significant, it is noted.

⁸A. Kim, *Community Building on The Web* (Berkeley, CA: Peachpit Press, 2000).

⁹For early examples, see for instance, E. Goffman, *Asylums* (New York, NY: Anchor Books, 1963) and J. Moreno, 'Mental Catharsis and the Psychodrama', *Sociometry*, no. 3, (1940), pp. 209-244.

¹⁰See for example, J. Morahan-Martin and C. Anderson, 'Information and Misinformation Online: Recommendations for Facilitating Accurate Mental Health Information Retrieval and Evaluation', *Cyberpsychology and Behavior*, 3, no. 5 (2000), pp. 731-746; S. Turkle, *Life on The Screen: Identity in the Age of the Internet* (New York, NY: Touchstone, 1995); and P. Wallace, *Psychology of The Internet* (New York, NY: Cambridge University Press, 1999).

¹¹ Unedited game transcript fragments are set apart from the text as tables. No grammatical or spelling corrections have been made, to preserve the feel of the game as it occurred.

¹²Anonymous, *The Turing Game Question Page* at http://www.geocities.com/turing_ga/ (2000, Consulted January, 2001).

¹³ Numbers in parentheses indicate overall change in score from the time when the response is given until the next response is given.

¹⁴Meaning 'laughs out loud' – an expression signifying that the author found a remark humorous.

¹⁵See, for instance, D. Ball, 'Sarcasm as Sociation: The Rhetoric of Interaction' in *Social Psychology Through Symbolic Interaction.*, eds. G. Stone and S. Faberman (New York, NY: MacMillan, 1986; and E. Goffman, *The Presentation of Self in Everyday Life* (New York, NY: Doubleday, 1959).

¹⁶G. Stone, 'Appearance' in *Social Psychology Through Symbolic Interaction*, eds. G. Stone and S. Faberman (New York, NY: MacMillan, 1986), p. 107.

¹⁷R. Oldenburg, *The Great Good Place* (Second Edition. New York, NY: Marlow and Company, 1999).