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"THIS ISN'T WHAT WAR IS LIKE": AN ETHNOGRAPHIC ACCOUNT OF ARMA 3

AMY MACK Bachelor of Arts, University of Lethbridge 2013

A Thesis
Submitted to the School of Graduate Studies
of the University of Lethbridge
in Partial Fulfilment of the
Requirements for the Degree

MASTER OF ARTS

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To my family for their faith in my abilities and interest in my work,
the gamers for their stories and kindness,
and the West Side Family for starting me down this path years ago.

Abstract

This thesis examines the social practices of the *Armed Assault 3* (*ArmA 3*) gaming community and their attempts to recreate a realistic combat experience online. Using an ethnographic approach, I explore the numerous military simulation (milsim) gaming practices employed by the community, many of which relied heavily on modeling and simulations processes. I contend that these practices were a response to the 'gaps' between the 'real' and the 'virtual,' which disrupted the gaming community's ability to achieve the desired combat experience. An analysis of these practices makes evident what was deemed necessary for a meaningful and realistic online experience by a diverse community, as well as the new layers of gaps produced by the gamers themselves.

Acknowledgments

There are many people I wish to acknowledge and thank for their wisdom and support. I am honored to have had the steadfast support and expertise of my supervisor, Dr. Janice Newberry. I am grateful of her ability to let me 'wander through the forest,' yet always know when I was in need of a guide. I am also grateful of my committee members, Dr. Louise Barrett and Dr. Jackie Rice, who supported me and my research, while challenging me to think beyond my own perspective and disciplinary approach. I am thankful for Dr. Nina Huntemann's advice on, and encouragement of, my project and interest in video-games. I thank Dr. Shelly Wismath, Dr. Carly Adams and Dr. William Ramp for their wisdom and instruction in the course work of this thesis, as well as Dr. Jerimy Cunningham for his guidance throughout my program and beyond. I also wish to thank Dr. Kristine Alexander, Dr. Erin Spring and Lindsey Meredith for the many, many times they listened and gave counsel.

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It is with the greatest of appreciation that I recognize the enduring and unwavering support of my family and friends. Their interest in this project – even

when it seemed so very strange to them – and their steadfast belief in my abilities give new layers of meaning to my academic adventures. Here, I found that gaps were non-existent.

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Chapter 1: Off the veranda and into the field

My cyborgian ethnography of ArmA 3's milsim community

"Do you get a lot of guys who really want to be soldiers? Who are super into the military and stuff?" This quote is representative the inevitable question from the audience I receive whenever presenting my thesis work in classes, conferences or even to friends and family. It also speaks to this project in general in that it reflects the preconceived notions many people have of the military simulation (milsim) community and genre. These notions are amplified after learning that my research focuses specifically on Bohemia Interactive's *Armed Assault III (ArmA 3)*, released internationally in 2014.

Research on military-themed video-games and first-person shooters (FPS) has been theorized and discussed by a variety of disciplines, from game studies to education and psychology. Theoretical conceptualizations of video-games in general frequently center on such issues as identity and representations, while many studies of FPS center on the moral panic surrounding violent video-games (Hoglund 2008; Kocurek 2012; Nardi 2009). Furthermore those FPS that fall into the military-themed shooter genre, and especially milsim, are theorized in terms of the educational potential of the PC based simulations, often for military purposes (Cannon-Bowers and Bowers 2009; Macedonia 2002)

Anthropologist Robertson Allen (2012; 2013) has taken a different approach to the study of milsim video-game franchise *America's Army* in that he addresses the issue of *process*, specifically the militarization of civilians and

everyday life. This approach posits that through the consumption of media (e.g. film, news and video-gamers), individuals form militarized subjectivities and are unwittingly incorporated into the military-entertainment complex (Andersen and Kurti 2009).

Following the work of Allen, I consider the process through which milsim gamers brought their militarized subjectivities, their models of what war is really like, to play in the ArmA 3 landscape and in turn militarized their gameplay style beyond the expectations of its creator. This process was crucial in order to achieve a realistic combat experience in a video-game. My exploration is grounded in the work of David M. Schneider (2011) on modeling in social analysis and the inevitable gaps that emerge between the complex messiness of social reality and how it is modeled. As such, my focus is expanded beyond the models and simulations produced by the gamers to the processes that the gamers employed in order to produce the desired experience. I contend that these processes were a response to the existence of gaps in the game's original, unaltered form, as well as to the modeling and simulation practices of other gamers. Furthermore, I argue that while these processes addressed a variety of gaps, they in turn produced new layers of gaps that the gamers were left to contend with.

In the remainder of this chapter, I provide a glimpse into my cyborgian fieldwork in *ArmA* 3, as well as an introduction to the Unit. In chapter 2, the milsim gamers are contextualized within the history of the genre, franchise and wider *ArmA* community. Chapter 3 outlines the methodology and field sites

visited, as well as a consideration of ethics in cyborgian setting. The theoretical orientation employed is described in chapter 4. Chapter 5 considers the use of modeling and simulation in role-playing and how these processes produce as many gaps within the community as they close. Chapter 6 explores the muddles in modding practices, as well as links to century-old gaps in the models of Arabs and Muslims. Chapter 7 reflexively considers the ways in which modeling is inextricably linked to gender in research and in *ArmA* 3. Finally, in chapter 8, I summarize the processes of modeling and simulation as used by myself and the milsim community as a means of negotiating gaps in the game and community.

A cyborg anthropologist's field notes

I am not a native of the FPS or military-themed shooter worlds. I therefore lacked a fluency in the language and culture of milsim. Furthermore, I had little in the way of academic literature on the *ArmA* franchise to educate me on the culture I was about to encounter. As a result, despite being a self-described gamer and digital anthropologist, I felt very much like an early 20th century anthropologist, traveling up a river into uncharted territory.

Okay. Today is the day. I'm launching ArmA. Finally going to play some military-themed games! Alright, the game has some pretty cool music to get you in the mood to game.

Oh! They have a 'Learn' section with 'Bootcamp' and 'VR Training' – that's perfect. Okay, Bootcamp looks like it is a mini-campaign to familiarize new gamers with the controls and the context for the single player campaign.

Okay, the 'Reality Check' portion of the training is described as "now for something completely different." Let's go!

Adams: Alright. Let's boot it up.

Adams: There we go... Calibrating... Looking good so far...

Conway: Holy shit.

Adams: I know right?

What the-? Holy shit is right. I'm in a VR bootcamp room. My trainer is blue! Why is he blue? The room I'm in is entirely made up of light and medium grey blocks – no environmental features like vegetation, animals or buildings.

My avatar, as I see it, is a floating hand holding a gun. I can see a bit of my arm but not much. If I point my eyes down, I can see my feet. Okay I'm supposed to run towards my blue trainer guy — Adams? — who has teleported to the other end of the room. Crap. I don't know how to use these keys. How do I turn? Ohh, the mouse. K, this might be a steeper learning curve than I thought.

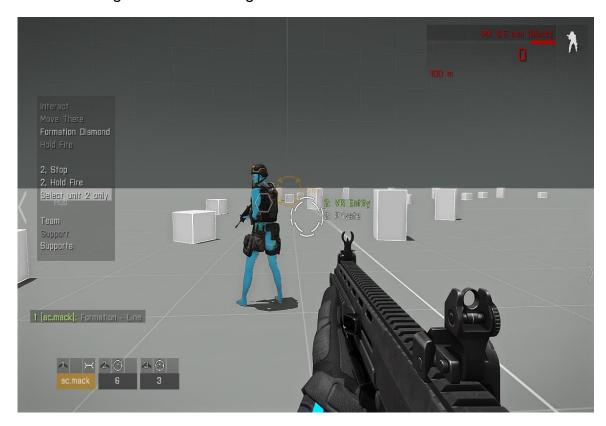


Figure 1: Screenshot of author playing ArmA 3 'Bootcamp' mini-campaign

(Field notes, 22 August 2014)

Okay. Going to try the first act of the campaign today! The campaign is called 'The East Wind' and I'm doing 'Survive,' which is the first act. It opens up with a fictional news report outlining the civil and political unrest that occurs between the mini-campaign and the single player campaign.

'Drawdown 2035' – it looks like my avatar is at a US base. Man this game is stunning! The graphics are incredible, especially the way they've done

the lighting and dust. When paired with the music it seems like the beginning of a Hollywood movie. Okay – got to get into a helicopter to go to another base. I think I'm named Kerry now? I'm definitely a male character. The terrain is so detailed and the helicopter/radio sounds make the whole thing really feel immersive, especially when I wear my headset.

Alright, time to try driving, apparently. Need to make my way to another base across the map... Driving is interesting – we are listening to hard rock and everyone is swearing left right and center. It feels very masculine...

We're taking fire! We have to run to the forest. And I died. Okay, respawn and retry. Oh, look! I died again. How lovely.

(Field notes, 06 September 2014)

I have lost count of the number of times I died in the first act alone. My ignorance of milsim culture severely hampered my ability to navigate the game with any real success. Hours of YouTube walkthroughs and forum discussions were necessary supplements for my autoethnographic work in the game itself.

Initially, I was interested in the modeling in the original game, its graphics and representations of soldiers and enemies, as well as how these contributed to the militarization of the gamers' subjectivities. I was committed to an autoethnographical account of the game, supplemented with content and discourse analysis. My discourse analysis of forums inadvertently provided an entry-point into the vast networks that constituted the milsim community, as well the potential for a more traditional ethnographic experience – one that involved interviews, surveys and participant-observation.

As I immersed myself in this networked community, I became increasingly interested in the behaviours of the gamers in- and outside the *ArmA 3* landscape. In order to achieve this, I needed to step off the veranda, or rather, out of the

single player campaign and into the community. In order to navigate the social reality of the milsim community, beyond hyper-links and videos, I needed a guide. Through the site armaclans (www.armaclans.com) and Reddit forum postings (www.reddit.com), I was able to access a diverse database of milsim groups, complete with contact information. I sent out dozens of emails, most of which were ignored or dismissed, searching for a group that would work with me. Finally a group expressed interest in the project, which I refer to in this thesis as the Unit.

The Unit: translators, informants and guides

"Forward!" - the Unit's motto

The Unit was a fascinating group to work with, diverse in membership, knowledge and ideas. It was formed by a group of gamers who had become uncomfortable with their former group's modeling and simulation processes and chose to form a new one based on a different set of processes. They were self-described as interested in realism, milsim, camaraderie and courtesy. Although they may have enacted an in-game hierarchy in order to streamline commands and operations, out-of-game they adopted egalitarian, friendly relations. They were adamant that "respect derives from character, not rank."

The Unit had an international membership, though it tended to rely on American military branches for models. It was almost entirely male, save for one woman who gamed with them on occasion, and members ranged in age and occupation from a college student to married with children and careers. Their skill

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¹ "Stepping off the veranda" is a reference to the work of Bronislaw Malinowski, who stepped off the veranda of the colonial administration office in the Trobriand Islands to develop a style of fieldwork that would become participant-observation.

levels were diverse, with recruits new to the game and the community, as well as seasoned 'vets' who had been gaming together for years. Some members were former soldiers or aspired to serve some day; a few were interested in military strategy and history, while others focused on the technological aspects of the game. As a result, the group had a varied knowledge-base and gamers came to *ArmA* 3 with a diverse set of models to work from.

The group was what I would describe as a 'serious' milsim group, though not quite 'hard-core' (see chapter 5 on role-playing). Ultimately, however, the Unit agreed that at the end of the day, or perhaps mission, it was just a game. Thus, while they strove to address gaps in their gaming practices through modeling and simulation processes, they were amenable to certain inevitable muddles in their models.

Chapter 2: The social life of ArmA 3 and the military-themed shooter

An introduction to modeling and simulation in ArmA 3

Modeling and simulation have often been a part of war-games and are frequently necessary for a fulfilling gameplay experience. From the classic *Chess* to the more contemporary board game *Axis & Allies*, players have used models and avatars to embody the role of soldier, general and hero. They have simulated real world battle strategies and armies throughout their board-game campaigns. As a result, it should not come as a surprise that modeling and simulation are also vital parts of military-themed video-games (Deterding 2010:21).

This chapter locates the contemporary military simulation video-game, Armed Assault 3 (ArmA 3), within this historical context. It traces the game's lineage through the military-themed video-game genre back to its physical board-game ancestors, illustrating the progression of modeling and simulation required to produce a game such as ArmA 3. It explores the game itself through a discussion of its decade long history and its creator, Bohemia Interactive. Finally, it addresses the diversity the gamers who play ArmA 3 and how they have become a part of this virtual social world.

The Genre

There is very little scholarship available on the genre itself, with next to no anthropological literature contributing to the discussion (see Allen 2013) as most anthropologists interested in video-game studies concern themselves with the massively multiplayer online role-playing games (see Boellstorff 2008; Nardi

2009). However, Jeanine Basinger's (2003) work on combat films provides an excellent model for my discussion. She argues that there are a variety of ways to approach the study or discussion of a genre. One could study (1) the media, (2) the people and systems that produce them, (3) the impact of changing technology, (4) the audiences and (5) the socio-political context (Basinger 2003:5-6). These five areas will be used as a framework for discussing this genre's historical and contemporary form.

Before a discussion of 'the genre' takes place, it would be beneficial to outline what is meant by the term. First, the genre includes any video-game that has a military aspect and is not limited to the first-person point of view. Second, the game must be realistic and earth-based. As a result, hyper-futuristic or space-based games are excluded from this genre despite having a military component (Hoglund 2008). This definition is not static; rather, this flexible and fuzzy definition of genre is necessary to understand the diversity and internal contradictions within the community.

The Games

As noted above, the genre has roots reaching back hundreds of years to wargames played on boards and with paper and pens, all of which were models of real world military scenarios and experiences. Throughout the 20th century, particularly post-World War II, these games gained great popularity due largely to their propagandist nature. This boom was repeated later during the Cold War with games like *Tactics* (Deterding 2010:24-5). These games also fostered the formation of gamer communities, with local game enthusiasts organizing meet-

ups and community game nights. Additionally, play by mail (PBM) groups formed wherein gamers would mail in their moves to a central agent known as the Game Master. This allowed gamers to carry out a game asynchronously over great distance creating networks and imagined communities (Bogost 2004:5).

These multiplayer games and their subcultures provided excellent models for future video-games based on player vs. player (PvP) models and community involvement. During the rise of the digital age in the 1980s, which saw marked advances in computer technologies, these physical games were transferred and translated onto the new virtual platform taking with them many of the mechanics, rules and themes. This created a second order model, or, a model of a model. However, one important difference is that these mechanics and rules were no longer an obvious part of the game; rather they were hidden in computer code and game structures. This now allowed the gamer to embody the soldier without having to break out of her immersion to read the rulebook or make a calculation (Deterding 2010:35).

The apical ancestor of the genre in its digital form can arguably be traced back to the arcade, where games such as *Commando* (1985) and *Metal Slug* (1996) introduced gamers to the simulated battlefield experience on a digital platform for the first time. During the 1990s, the simulated battlefield moved from arcade to the living room with the introduction of home consoles and PC gaming (Taylor 2012:6). Titles such as *Delta Force* (1998) and *Rainbow Six* (1998) allowed the gamers to become virtual soldiers, to see and hear the sounds of the

battlefield through a first-person perspective while adhering to a gameplay style based on real world militaries.

The early 2000s saw the release of classic first-person shooter military games like *Call of Duty* (2003) and *Operation Flashpoint: Cold War Crisis* (2001). It is the latter that this project is most concerned with, as it can be seen as the great-grandfather of the current *ArmA* 3 game. The game was originally created by Bohemia Interactive and later licensed to Codemasters for publishing and distribution. Following the release of *Operation Flashpoint: Cold War Crisis*, Bohemia Interactive and Codemasters severed their creative ties, leaving Codemasters with the rights to the series name. Using the game engine introduced in the original *Operation Flashpoint* game, Bohemia Interactive developed and launched the first game in the Armed Assault series *ArmA: Combat Operations* (2007) as a spiritual successor to *OPF: Cold War.*² Bohemia Interactive has since released *ArmA* 2 (2009) and *ArmA* 3 (2013), as well as a number of expansions and downloadable content between the major titles.

The people and systems

Another aspect of Basinger's (2003) framework is the analysis of the people and systems who produce the games. In the case of the military-themed genre there are a number of actors involved from the software designers and coders to narrative writers and artists. Many of the companies that employ these people,

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² Bohemia Interactive Developer's Blog, "The Name Game: Codemasters' Marketing of New "OFP" Creates Confusion, Provokes Protests," Accessed 28 August, 2014, https://www.bistudio.com/blog/the-name-game-codemasters-marketing-of-new-ofp-creates-confusion-provokes-protest.

like Bohemia Interactive and Yager Development, are multinational despite the genre's emphasis on the American military's exploits.

With regards to modeling, the multinational nature of the companies is interesting. Yager Development, for example, despite being based out of Berlin, created the game *Spec Ops: The Line* (2012), which follows an American soldier and his elite Delta Force team (Spec Ops: The Line 2011). One could argue that there is a need to model the American military, due to its current status as the super power and its involvement in a number of international conflicts, in order to sell video-games to an international market. Bohemia Interactive, however, takes a different approach. With the release of *ArmA 3*, the Czech company has based its protagonists as soldiers in a US-led NATO operation. Once again these games are modeling themselves after real world systems, but most notably after the American forces.

The use of American military branches as the inspiration for the games is also not surprising given its historical involvement in the production and distribution of military-themed video-games. At the same time the arcade style war-games were beginning to gain popularity, the United States Department of Defense became engaged with the video-game industry, contracting Atari to modify their arcade tank battle game *Battlezone* (1980) for army training purposes (Macedonia 2002:162). The United States military continued its involvement throughout the 1990s, releasing *Marine Doom* in 1996, a modified version of the commercial game *Doom II* (1994) used for Marine Corps training purposes (Macedonia 2002:162).

In the early 2000s the U.S. Army began releasing video-games targeted at civilians. *America's Army: Rise of the Solider* (2001) and *America's Army: Special Forces* (2003) both served as recruitment tools, rather than just training simulations. These army-produced games introduced civilian gamers to a higher degree of modeling and simulation than they had encountered through commercial titles, while simultaneously satisfying the existing demand for 'serious' games of this genre (Allen 2013:154; Hoglund 2008; Nichols 2010:40).

Changing technology

Basinger (2003) argues that when addressing the concept of genre it is important to look at the impact of technological changes and advancements on the media produced. She notes that shifts from black and white to color, as well as developments in sound, are vital to understanding the evolution of the genre (Basinger 2003:5). The same is true for video-games as they are entirely dependent on the technology available for game dynamics and aesthetics.

As the technology available to video-game creators has shifted, so has the modeling and simulation. It goes without saying that as the visual and artistic technology advances, the images on the screen become more realistic and lifelike. The early video-games, such as *Delta Force*, were highly pixelated and jarring in comparison to contemporary titles.



Figure 2: Delta Force in-game screenshot (*source:* http://www.novalogic.com/games.asp?GameKey=DF#ss).

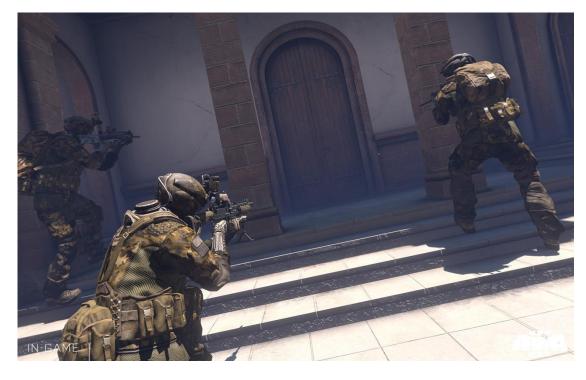


Figure 3: ArmA 3 in-game screenshot (source: http://arma3.com/media/images).

As one can see, the difference between the visual components of these two ingame screen shots is undeniable. During a play through of the *ArmA 3* campaign, gamers can hear and see the wind blowing through individual blades of grass, rather than pixelated lumps of green.

During my autoethnographic research on these games, the pixelated images and almost humorous graphics were at the forefront of my discussions with other gamers.

[AM]: I enjoy shooting them [enemies in *Medal of Honor: Frontline (2002)*] in the feet and watching them hop around.

[AB]: That was revolutionary for its time!

[AM]: It's soooo funny. I also enjoy their reaction to headshots.

[AB]: You're getting way into this killing nazi thing

[AM]: They touch their heads, look at their (not) bloody hands and then fall over. Hilarious!

[AB]: Yeah, hilarious. That's what the designers were going for.

[AM]: I can't be the only one to find this amusing.

(Text message to author, 03 October 2014).

These shifts in graphics associated with technological changes were in fact discussed by gamers other than myself. In a YouTube video of gameplay footage for *Medal of Honor: Frontline* (2002) one commenter noted "People can not say this is not realistic. Ok, it may not be as realistic nowdays compared to the current MWF 3, but when this came out, it was seen as a break through for gaming and graphics." This I argue, illustrates that not only are these changes apparent to gamers across the genre, they are consciously linked to historical developments and eras. These changes in technology are not all necessarily received by gamers as welcomed changes with many lamenting the emphasis

³ Comments on Klinzing, "Medal of Honor: Frontline D-Day (PS2), accessed October 3, 2014, http://www.youtube.com/watch?v=Tjpw2SCMOXY.

placed on graphics and realism at the expense of gameplay and content. In the same discussion of *Medal of Honor: Frontline* (2002) commenters often argued that advances in graphics were not necessarily a good thing for the genre or the experience. One such commenter noted:

I agree, but that's how a lot of current-generation gamers are. They care more about graphics, multiplayer and faux-realism than good gameplay and level design. Today's games consist of a lot of generic, gritty military shooters with practically on-the-rails gameplay and too much scripting, meaning that they are completely different than games such as Frontline, yet today's gamers expect all games to be the same regardless of age.

Comments such as this indicate that graphics play a minimal role in the overall game play experience for those gamers who played the earlier titles from the 1990s and early 2000s.

Changes in technology also impacted the way these games were played. The earlier games came out when the Internet was still only accessible through slow, dial-up Internet, which impeded certain aspects of group play. As one gamer noted in his play through of *Rainbow Six* (1998) "That game could immerse you so much and just put you into this world, this tactical world, and get you in there with your friends. Now unfortunately we didn't have too much voice communication – again we're on modems." This inhibited many aspects of gameplay enjoyed by contemporary gamers such as voice communication and coordination of in-game multiplayer strategies. One aspect of modeling is the incorporation of real world jargon into the gameplay as a means of increasing the

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⁴ SideStrafe, "Nostalgia Night – Tom Clancy's Rainbow Six 1998," accessed 27 August 2014, https://www.youtube.com/watch?v=osYqayiNBng.

immersion and simulation (see chapter 5). This aspect of the real world model would not have been possible in the older games.

Audience

The question of audience for this genre is a difficult one to address, as the 'audience' in question is not necessarily static or bounded and the games themselves have a great degree of variety in terms of gameplay. However, it is important to consider the audience as these games allow for a great degree of gamer agency. I argue that despite the fact that producers may intend their games to be 'serious' like the *America's Army* and *ArmA* franchises, the way the gamers actually play can drastically change the nature of the game, and by extension, the genre.

According to survey respondents, some *ArmA* gamers enjoy the highly realistic simulation and teamwork aspects of the game, which they do not get from other games in the genre. Many expressed that player behaviour in particular games made the experience less realistic, with certain games drawing in players who just wanted to "goof off." Others found the strict adherence to real world models and extreme realism restricting, opting to modify their play to be more casual. When asked what other games they played, many of the individuals involved in this study listed off games that fit into the genre, but they were by no means exclusive to it. This illustrates the variety of games, gameplay style and gamers within the genre.

It is also difficult to address the question of gender in these games. The genre is widely conceived of as being a masculine space, prone to "displays of

braggadocio, machismo, sexism, racism and homophobia" (Payne 2010:216). With regards to this genre's demographic, no statistics are readily available as much of the demographic work within game studies is focused on massively multiplayer online role-playing games (see Ghuman and Griffiths 2012) and statistics on gender in video-games consider the industry as a whole, including mobile games (ESA 2013; ESA 2014). However, one could infer from the YouTube footage of these games, as well as the live broadcasts being streamed through websites like Twitch, which serve as proxies for analysis, the majority of gamers in this genre are male. In my research of *ArmA 3* specifically I only encountered two female players out of over a hundred gamers. Additionally, the predominance of male protagonists and the explicit exclusion of playable female avatars also marks the space as masculine, whether or not women gamers exist within it.

Age and nationality can be equally difficult to discern within this genre. I have frequently heard anecdotes that games like *Call of Duty*, especially when played online with others, is filled with "annoying 12 year-old boys who have just learned to swear." Though this may hold true for the less serious games within the military-themed video-games genre, within the niche subculture of *ArmA 3* milsim, the gamers were predominantly over 18 years old. Many milsim groups had a minimum age requirement for recruitment, which was often set between 15 and 20 years of age. The Unit, for example, only accepted applicants who were 18 or older. In terms of nationality the genre is just as diverse, despite the fact

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⁵ See <u>www.armaclans.com</u> for listing of *ArmA 3* active clans and their age limits.

that many of the games have an American focus or protagonist, as was the case for *ArmA 3*. Based on data collected from Twitch streams and the website ArmA Clans, it was clear that there was a strong European base for *ArmA 3*. Many streams were in French, German and Russian, as well as English with a noticeable accent. ArmA Clans allows individuals to find groups within their area by selecting Asian, Europe, North America, Oceania, South America, South Africa or international. Search results for milsim *ArmA 3* groups were only returned for International, Europe, North America and Oceania, though this does not discount individuals playing in Asia with an international group. These different nationalities and languages are reflected in the data where audio and video recordings, as well as forum posts, were transcribed verbatim.

Socio-political context

The final aspect of Basinger's (2003) framework for understanding genre that I am employing here is the socio-political context in which the genre is situated.

This is perhaps one of the most important facets of the framework, given the U.S. military's involvement both directly and indirectly in the games.

Throughout the relatively brief history of the genre, real world events have had a marked impact on the look and tone of the games. Prior to the terrorist attacks of 9/11 and the subsequent invasion of Iraq, many of the games were World War II and Vietnam re-enactments (see the *Medal of Honor* and *Battlefield* franchises) or had generic terrorists and criminals (Hitchens, et al. 2014:13). Additionally, in many of these games the real world enemies of the United States are modeled in-game, with political enemies being painted as Chinese, Russian,

North Korean and Iraqi, rather than Western European or Canadian (Hitchens, et al. 2014:16).

The years following saw a rise in games that took place in the Middle East and Afghanistan, with stereotypical Islamic extremists as the main enemies.

Games such as the *Conflict* series, which despite their emphasis on the First Gulf War, visually reflect contemporary concerns about the second invasion of Iraq as "the releases of Conflict: Desert Storm, Conflict: Desert Storm II, and Conflict: Vietnam between the summers of 2002 and 2004 coincide nicely with the preinvasion, invasion, and occupation of Iraq" (Allen 2010:42).

Of course, the Islamic terrorist did not completely replace the drug runners and Nazis seen previously nor did they remain the dominant trope following the American public's general war fatigue in the late 2000s (Hitchens, et al. 2014:18). As Allen (2010) notes, in the most recent versions of *America's Army* (2009 and 2013) there has been a deliberate erasure of racial or geographic identifiers for the enemies. This allows the enemy to be anyone and anywhere, creating an unreal or mythic enemy that can be easily connected to whatever conflict is happening in the world. This ebb and flow of enemies, antagonists and geographic locations found in the game clearly illustrates the influence of real world events, contemporary or historical, on the genre, as well as shifts in social relations generally.

The Game

"Experience true combat gameplay in a massive military sandbox. Deploying a wide variety of single and multiplayer content, over 20 vehicles and 40 weapons, and limitless opportunities for content creation, this is the PC's premier military

game. Authentic, diverse, open - Arma 3 sends you to war. "6 (Steam, "Arma 3," n.d.)

The above quote is how Steam, the official download site for PC games including *ArmA 3*, describes the game to potential gamers and community members. This subsection addresses how and why ArmA 3 came to dominate the genre discussed above by providing an overview of its history and progression as a series, gameplay and structure, aesthetics and narrative, as well as a brief discussion of its creator, Bohemia Interactive.

Operation Flashpoint to ArmA 2

As noted previously in this chapter, the *ArmA* franchise is the spiritual successor of the original Operation Flashpoint: Cold War Crisis (2001) created by Bohemia Interactive and Codemasters and as such carries with it well over a decade of innovation and progression. This subsection briefly describes the games in the series leading up to ArmA 3 as a means of familiarizing the reader with the foundations for the game as well as the expectations placed on it by gamers.

Beginning with Operation Flashpoint (OPF), the game franchise was quickly established as a military simulation series with an emphasis on using real world tactics and models. The game follows a team of US NATO soldiers tasked with putting down a group of rebel Soviets. Though the storyline is fictional and takes place over a decade in the past, the game still draws on the socio-political

⁶ Steam, "ArmA 3," n.d., http://store.steampowered.com/app/107410/, accessed August 27, 2014.

⁷ Metacritic, "Operation Flashpoint: Cold War Crisis," n.d., accessed August 27, 2014, http://www.metacritic.com/game/pc/operation-flashpoint-cold-war-crisis.

context, namely the US's mistrust and vilification of Russia. The game was rereleased as *ArmA: Cold War Assault* by Bohemia Interactive in 2011.⁸

Following the split from Codemasters, Bohemia Interactive produced ArmA: Combat Operations (2007) as the sequel to OPF, and claims to bring viewers the "most realistic warfare experience ever seen on a computer" (Bohemia Interactive 2007:2). According to Steam "ARMA: Combat Operations is a first person tactical military shooter on the PC with large elements of realism and simulation. This game features a blend of large-scale military conflict spread across large areas alongside the more close quartered battles." The game employs a multitude of real world, modern weapons, vehicles and maps. Analysis of gameplay footage and screenshots clearly illustrates a drastic improvement in graphics and audio, as well as avatar modeling.

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⁸ Steam, "ArmA: Cold War Assault," n.d., http://store.steampowered.com/app/65790/, accessed August 27, 2014.

⁹ Steam, "ArmA: Cold War Assault," n.d., http://store.steampowered.com/app/65790/, accessed August 27, 2014.



Figure 4: *ArmA*: Combat Operations in-game screenshot (*source*: *http://store.steampowered.com/app/2780/*).

The game takes place in the fictional island of Sahrani, located in the Atlantic Ocean. Sahrani is home to two markedly different countries, as the northern half is ruled by a communist dictatorship and the southern by a democratic monarchy. The southern country, rich in oil and natural resources, has invited a US army contingent to train its army as a means of defending itself against a possible attack from its northern neighbor. However, the north sees the US presence as justification for a pre-emptive attack triggering a conflict that the gamer must navigate to survive (Bohemia Interactive 2007:23-4).

In 2009, *ArmA* 2 was released, boasting one of the most realistic combat environments in the world. According to Steam,

It models real world ballistics & round deflection, materials penetration, features a realtime day/night cycle and dynamic wind, weather and environmental effects. The simulation of a combat environment is so effective, the engine forms the basis for training simulators used by real armies the world over. Although ARMA II is set in the fictional ex-soviet state of 'Chernarus' the gameworld is actually a 225 square kilometer chunk of the real world! ARMA II's highly detailed landscape is a meticulous facsimile of real terrain, modeled using extensive geographical data. This recreated region is brought to life with spectacular environmental effects and populated with dynamic civilian settlements and wildlife.¹⁰

The game follows the US Marine Corps' Force Recon Razor Team, as they carry out a peacekeeping mission in the fictional, civil war ravaged Northern Chernarus. In addition to the authentic in-game weapons, vehicles and environments, *ArmA* 2 comes with a 'comprehensive' playbook of real world military tactics to increase the gamer's level of military simulation and modeling.¹¹

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¹⁰ Steam, "ArmA: Cold War Assault," n.d., http://store.steampowered.com/app/33900/, accessed August 27, 2014.

¹¹ Bohemia Interactive, "Arma 2 Features," 2015, accessed August 27, 2014 http://www.arma2.com/game-features/arma-2-features.



Figure 5: ArmA 2 in-game screenshot (source: http://www.arma2.com/game-features/arma-2-features).

Between the release of *ArmA 2* and *ArmA 3*, a number of expansions for *ArmA 2* were developed and distributed by Bohemia Interactive, with the most recent update to *ArmA 2: Operation Arrowhead* released in June 2014. The game still has an active community online, with a number of military simulation units playing it on a regular basis in addition to other games such as *ArmA 3* and *America's Army 3*.¹²

Gameplay and Structure

There is great variety when it comes to how a video-game plays. Some are simple turn-based battle games, others involve expansive world exploration.

Drawing on autoethnographic data and gameplay footage from *ArmA* groups, as well as survey data, this subsection discusses the experience of playing through

¹² See "arma clans," August 30, 2014, http://armaclans.com/.

(and dying in) *ArmA 3*. This section is restricted to the campaign aspect of the game played as Bohemia Interactive intended. Before I begin this discussion, a brief overview of the structure of the game, particularly the technological advancements in the latest title, is necessary.

As noted in the section on genre, one of the most important aspects of game study is the way technological advances and innovations shape the games produced. This has already been hinted at above when discussing the improved graphics between the games in the series. With the release of ArmA 3, Bohemia Interactive gave much of the credit to their significantly upgraded Real Virtuality 4.0 engine, which resulted in a drastic improvement from ArmA 2. With this new engine, as well as the introduction of Microsoft's DirectX 11 graphics technology, the game delivers fluid animation, richly detailed battlefields, authentically simulated vehicles and weapons. An upgraded sound engine now properly simulates the speed of sound and delivers different sounds depending on location. A new physics system, Physx, improves the behaviour of vehicles, the environment and weapons, allowing for movements in-game to be more realistic. Even the plant program received an upgrade in this version, with the incorporation of Silvador Tree Generator creating a variety of realistic plant life, which adds to immersion. Finally, Bohemia Interactive focused on improving the handling of animations by introducing new combat paces and stances. These programs and engines form the basic structure for the game, on which the rest of the gameplay and community is built.¹³

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¹³ Bohemia Interactive, "Features – Engine," accessed September 5, 2014, http://arma3.com/features/engine

With regards to actual gameplay, the game is relatively straightforward. There are four difficulty settings to choose from, so as to include everyone from first-time *ArmA* gamers to those who have been playing since *OPF*. There is also a comprehensive battle simulator, known as VR Training, which these first-time gamers can go through to familiarize themselves with the keyboard and mouse controls as well as the game's interface. This world is a simulator within a simulator, with the avatar entering into a virtual reality. In this part of the game they learn about individual aspects of increasing difficulty. The tasks performed include learning how to lock onto targets with drones, disarm mines, fire rifles, throw grenades and issue commands to the rest of the team.

Once the gamer is familiar with these mechanics they can enter into the "bootcamp" mode. This single-player campaign introduces the new gamer to basic infantry combat including actions, navigation and weapon handling. Set one year before the main campaign, this is the gamer's first taste of the tone, mood and cinematics of the game. Following a brief period in the VR Training simulator, the player controls Sgt. Conway, a NATO peacekeeper, as he conducts joint training with the Altis Armed Forces (AAF). Conway and his group later provide assistance to the local forces during a skirmish, which provides the gamer with her first combat situation as well as map reading. The rest of the bootcamp involves minimal player cinematic cut scenes that impress upon the gamer that there are rising tensions between the factions on the island and sets the US and NATO forces as necessary saviours.

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¹⁴ Bohemia Interactive, "Bootcamp," accessed September 5, 2014, http://arma3.com/bootcamp

When in the game, players can toggle between first-person and third-person perspectives. Some military simulation groups argue that first-person is more immersive, that one can more easily embody the soldier from this perspective. Others recognize that third-person has benefits for gameplay despite the breaks in immersion. One gamer commenting on an ArmaHolic discussion thread noted that "... Some people claim 3rd person is "cheating", but even the devs say it's not because as you said, we [lack] peripheral vision that we should have." Another noted that he found himself swapping back and forth depending on the situation, "I guess first person because I find myself doing alot of flanking and CQB plus I need quick access to ironsights [I'II] use 3rd person to view the landscape and watch for ambushes and drive." Others noted third-person is beneficial for seeing around corners, over ledges and while driving or flying.

The game has both a single player campaign and online multiplayer missions. In the campaign mode gamers are taken through a three-act story arc, which includes time playing with friendly forces as a team and periods of trying to survive alone, giving breadth to the gameplay mechanics.¹⁷ In the multiplayer missions there is unlimited variety as to the sorts of games to be played with coop games ranging from 2-player missions to competitive wars with no player cap. *ArmA* 3 now also includes the 'Seize and Defend' mode allowing players to compete or co-operate against a larger enemy. In a throwback to the earlier

¹⁵ Comment on Armaholic discussion forum, accessed September 23, 2014 http://www.armaholic.com/forums.php?m=posts&q=15000.

¹⁶ Comment on Armaholic discussion forum, accessed September 23, 2014 http://www.armaholic.com/forums.php?m=posts&q=15000.

¹⁷ Bohemia Interactive, "Features – Campaign," accessed September 5, 2014, http://arma3.com/features/campaign

board-games, *ArmA 3 Zeus* mode allows individuals to assume the role of game master once again creating new stories and challenges as the game progresses. Using a real-time editor these masters can manipulate the game by adding enemies, changing structures or rerouting friendly forces for the other gamers.¹⁸

These mechanics and options make *ArmA 3* a diverse and engaging game. The variety is often what gamers told me kept them coming back year after year. However, the gameplay is not an easy one for a casual FPS gamer such as myself. The gameplay is complex, requiring the full use of the keyboard and mouse. Some FPS games are "run & gun" in which players can simply blast their way through enemies, soak up bullets and get by with minimal difficulty – *ArmA 3* does not afford that. The new fatigue system, which limits how long the avatar can run before slowing down and becoming shaky while firing, and the lethal enemy artificial intelligence (AI) provide secondary levels of difficulty and realism.

Aesthetics and Narrative

In addition to complex and engaging gameplay and mechanics, the aesthetics and narrative in *ArmA* 3 are compelling reasons to play the game. The game employs a combination of gamer-controlled action and cinematic cut scenes to progress the narrative. One thing to note with regards to aesthetics is that not all computers are created equally when it comes to *ArmA* 3, meaning an older or less expensive computer will be more pixelated and slow to load, whereas a newer and more powerful computer will be far more fluid and crisp. I had the

¹⁸ Bohemia Interactive, "Features – Multiplayer," accessed September 5, 2014, http://arma3.com/features/multiplayer

privilege of playing this game and watching HD footage on a custom built, high performance gaming computer, so my analysis is based on the highest quality aesthetics possible. Someone with a slower and older computer may view these images differently.

The introduction to the game is a high-quality faux news clip, outlining the "bloody civil war" that has ravaged the Republic of Altis and the resulting humanitarian crisis. The story is set in 2035 beginning with the drawdown of US-led NATO forces on the island, while the Canton Protocol Strategic Alliance Treaty group (CSAT) step up military operations to exert their prominence against the crumbling Western powers. In addition to NATO forces, the other factions on the island nation include: the Altis Armed Forces (AAF), who is officially overseen by international peacekeepers, but remain fiercely loyal to the hard-line Altis government and act as "de facto judicial and executive authority... and is blighted by widespread corruption." CSAT, a group of Asian countries with interests in formerly Western spheres of influence; and FIA (Freedom and Independence Army), who are rumored to be former and defected AAF dedicated to the removal of the military-backed government as well as external influence despite their support from Western powers.¹⁹

In "Episode One - Survive" the gamer plays as Corporal Ben Kerry, a

NATO peacekeeper, assigned to oversee the drawdown. However, the

drawdown does not go as planned with the AAF launching attacks across the

island against remaining NATO forces. The gamer must navigate the unexpected

¹⁹ Bohemia Interactive, "Features – Factions," accessed September 5, 2014, http://arma3.com/features/factions

attack while trying to regroup with other NATO forces on the island. In "Episode Two - Adapt" these forces make their way to the Altis mainland seeking assistance from the guerrilla forces, the FIA. This episode includes skirmishes with both AAF and CSAT forces. During "Episode Three - Win" the player navigates more combat situations with the AAF and CSAT, while also discovering NATO's use of a new classified seismic activity inducing device. The game ends with heavy fighting, and Kerry is forced to escape Altis on his own. Here, the player is able to decide whether to allow Kerry to escape the island or be killed in action.

Within these episodes is a predominant theme of the West as saviours and the combatants as being incompetent or barbaric. This theme also appears to be a foundational one for the plot, which the gamer is exposed to quite early in the game. Some examples of this heavy-handed treatment:

While driving a convoy through an AAF checkpoint:

Adams [over the radio]: Sergeant Lacey, be advised the Greenbacks [the AAF forces] are really waving their dicks around today.

Adams [over the radio]: Be on your best behavior at the checkpoint, soldier, you got that?

Lacey [over the radio]: Yes Staff Sergeant, I'll put on my best smile, sir. Adams: You know, I don't think they even know what they're looking for, Kerry.

During an investigation involving civilian deaths by AAF forces: Conway [over the radio]: Adams, I've got a weapon stash here. Small arms and explosives. Definitely guerrilla. Over. AAF Soldier [over the radio]: You see? They were a threat. Conway [over the radio]: Yeah, and I'm sure they just attacked you for no reason.

During a patrol of a war-torn urban center, Conway comes upon AAF holding what appear to be civilians against the wall with their hands behind their heads at gunpoint:

Conway [to himself]: Shit...

Conway: Hey! What are you doing?

Conway: Hey, asshole, I'm talking to you!

AAF Soldier: This is none of your business, American.

Conway: Buddy, I'm warning you, you pick this fight and you'll lose.

AAF Officer: Is there a problem here, Sergeant?

Conway: What's the problem? Your men are *abusing* these prisoners. AAF Officer: What my men do is my concern, and mine alone, Sergeant

Conway: The hell it is! Corporal, arrest them.

AAF Officer: Don't you take another step. You are out of line, American.

After being told by his superiors to stand down:

Conway [to NATO Officer Adams]: Just so you fucking know, I'm about to shoot something.

Adams: Hearts and minds, Sergeant. Hearts and minds...

Conway: Who was that asshole?

Adams: 'Callsign Phalanx'. Colonel Akhanteros. You just bashed horns with the AAF's top brass.

Conway: That's their top brass? Now I know why they're so fucked up.

In the game, exchanges like these are common. Often filled with masculine bravado and profanity and when driving in vehicles heavy metal and rock music plays through the speakers. The soldiers adopt a condescending and demeaning attitude towards the locals, often remarking on their uncivilized behaviour.

With regards to aesthetics, the game shows a marked improvement since the earlier versions. The landscape and environments are very detailed and at times look as though they could be film footage rather than graphics created by a computer. The audio and ambient noises make the game incredibly immersive; one can even see and hear the wind moving across the landscape. As noted above, the sound has been designed to give the illusion of space. This meant that when playing the game with headphones on, I found I was able to determine what direction the shots were being fired from.

Creator

As Basinger (2003) notes, it is important to assess the creators of the media consumed and as such this subsection will briefly discuss the creator of the series, Bohemia Interactive. Founded in 1999, Bohemia Interactive is an independent game development studio based out of the Czech Republic. They have developed over a dozen stand-alone games, many of which have released expansions and extra downloadable content.²⁰ Reciprocal exchange and coproduction with consumers is a major aspect of the company's approach as evidenced by their encouragement of gamer-made modifications (mods) to the game, offering prize incentives to these individuals through the "Make Arma, Not War" campaign.²¹ Some of these mods, such as DayZ, have been picked up by the company and released as standalone games or official content.²²

In addition to games, they have also developed the Real Virtuality engine, now in its fourth edition, rather than the existing Unreal Engine used in the *America's Army* series. What is interesting about the engine is that it is used by Bohemia Interactive Simulations, an independent company formed after the original *Operation Flashpoint* was released in 2001, to use in its Virtual Battle Simulations (VBS) projects. The company now develops battle simulators modeled on real world militaries for use in training by the same real world militaries. Many of its games, such as Virtual Battle System 1 and 2 are based off

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²⁰ Bohemia Interactive, "Company," accessed September 5, 2014, http://www.bistudio.com/company/brochure.

²¹ Bohemia Interactive, "Make ArmA Not War," accessed September 5, 2014 www.makearmanotwar.com.

²² Bohemia Interactive Store, "DayZ," https://store.bistudio.com/dayz.

of the *ArmA* series. Though the companies are technically independent, it is important to consider the connections between the two when discussing modeling in *ArmA* 3.²³

The Gamers

In this last section I wish to discuss the people who actually play this game and give the reader a sense of the diversity found within this community. I will pay specific attention to the military simulation (milsim) gaming style, as that group is the main focus of this thesis.

As indicated previously, *ArmA* series games are highly moddable in that gamers can easily modify the in-game content as well as the game's overall structure. The results can range from country-specific military fatigues to the creation of a zombie wasteland. As a result, these various mods pull in a variety of gamers. Additionally, the ability to play solo campaigns or massive multiplayer missions further diversifies the community.

In a survey conducted for this project (see Appendix 2), gamers were asked what drew them to *ArmA 3*. Responses included an interest in specific mods, such as DayZ, as well as the milsim style game and its emphasis on realism. Others focused on their enjoyment of the vehicle and flight simulators, as well as the variety of roles they could play. Some liked that it brought in a more serious and mature crowd due to its slow pace and emphasis on planning and

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²³ Bohemia Interactive, "Company," accessed September 5, 2014, http://www.bistudio.com/company/brochure.

strategy, as opposed to other games within the genre that had a more "teenage boy just learning to swear" feel to them.

When asked to describe the game, most respondents included terms such as *highly realistic*, *military simulator*, *tactical shooter* or *it can be anything you want* in their responses. One respondent went so far as to claim "[*ArmA 3* is] as close as you could get to the army without actually signing up. You use all manner of weapons and offensive vehicles to conquer your enemy on the field of battle." Others were explicit in their disagreement that *ArmA 3* is considered a military simulator, noting that just because it is a tactical shooter does not make it a true milsim.

The survey also illustrated diversity in social desires for the gamers. Many enjoyed playing multiplayer missions with others, while some were hesitant to log onto the public servers (pubservers) and preferred to play with people they knew from other games or real life. According to one respondent, "pubservers are full of fuckery, everyone's just running around doing their own thing." Clearly, there is variety to how the game is played, perceived and enjoyed.

As I have noted throughout, *ArmA* 3 has been modified by the community in ways that obscure its milsim roots. For example, the zombie wasteland that *DayZ* takes place in shows no resemblance to the team based, milsim tactical shooter that Bohemia Interactive created. The roleplaying mod, *Altis Life*, is also drastically different with its gameplay style resembling more of a cops and robbers game. Even *Battle Royale*, which visually maintains much of the milsim feels, pits player against player in a battle to the death - the antithesis of the

army's *no man left behind* mantra. Other than drawing on the original game's environment and landscape graphics, much of the game's narrative and structure has been altered. The gamers have also added objects to the game not previously available. New vehicle and weapons modifications are placed over existing content to achieve the proper look or feel of the story. Motorcycles and race cars have been introduced to allow for more realistic car chases in *Altis Life* and contemporary weapon styles replace the futuristic 2035 models that come with the original game.

The focus of this research are the gaming practices of milsim gamers, or those who chose to play *ArmA* 3 as it was originally intended, modifying it using real world militaries as models in order to increase the degree of verisimilitude. It looks at the roleplaying and modding practices of milsim units and how these relate to real world models. These units are also varied both between and within units. One of the gamers I interviewed argued there is a spectrum within the community and that this spectrum came with different interpretations of the game and of milsim. He noted "you have the realism spectrum, where on one side you have hard-core realistic groups, and on the other side you have casual groups... I believe they would have fundamentally different opinions on this game than we [his unit] have."

Some groups explicitly described themselves as casual units that place having a good time over rank and doctrine. From one group's page:

We use a rank structure, however everyone is treated appropriately; there's no saluting, no "sir(s)," just a good group exploring the vast opportunities that this game and community provides.

Our unit is tailored to be a casual mil-sim environment. This means that we don't conduct heavy amounts of lethargic training. While yes we'll need to do some basic checks to make sure you're good to go before you go into a mission with us, it won't be boring, and if you have some previous experience that will help expedite things.

Others prided themselves on their attention to doctrine, hierarchical command and simulation of rank in and outside of the game, as well as authentic trainings and drills to supplement weekly missions. One group, which other gamers frequently mentioned when discussing modeling and simulation, has over half a dozen training schools for snipers, rangers, special forces, etc.; regimental departments including the Regimental Recruiting Department, Military Police Corps and a Judge Advocate General Corps; and staff departments for Personnel Administration, Intelligence and Security, as well as Public Affairs. The group also pays close attention to rank and requires members to address officers appropriately with their title, the term 'sirs' and a verbal salute. This reflected a spectrum of role-playing activities (see chapter 5) within the milsim community. Some groups adapted their models of real world militaries to "fit" their desired gameplay, while others elected to use their models as they were, despite the gaps that emerged.

As noted above, the groups also varied with regards to their demographics. During my time in the community, the vast majority of milsim gamers I encountered were male, with only a handful of visible female players.²⁴ They were also a multinational community, with the game being popular across Europe, North America and the Oceanic countries. Many units reflect this

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²⁴ Some women and girl gamers elect to conceal their gender identity.

multinational demographic, while others restrict membership to their geographic region due to time zone restrictions.²⁵ Additionally, some units chose to model themselves after their own military, rather than the NATO or US forces in the game. These units modified their tactics and doctrine to reflect their chosen model and applied cosmetic mods to alter the appearance of their fatigues.

One thing many of these milsim units have in common, despite their placement on the spectrum, is the use of mods to improve their gameplay in one way or another. Most units maintain an active website and will list their "modpacks" or those mods required to play with them. These will often include modified artificial intelligence, so the enemy responds in a more realistic manner, weapons mods, so they look like contemporary weapons rather than futuristic, and audio mods to aid in proper communication. These modding practices will be expanded on in chapter 6, but it is worth noting the almost universal use of mods by milsim groups, especially in contrast to role-playing, which was highly diverse and contentious.

These gaming practices are reflective of a genre that has seen many changes due to technological and socio-political shifts over the last two decades.

ArmA 3 is an excellent example of a highly realistic military-themed shooter and throughout the remainder of my thesis I explore the modeling and simulation processes that allow it to be so realistic.

²⁵ Search, "armaclans," accessed August 27, 2014, armaclans.com.

Chapter 3: On the methods, field sites and ethics of a cyborg anthropologist

Following connections in the field

This project was originally structured to gain access to members of the *ArmA 3* community and became increasingly focused on military simulation (milsim) units and their sites of social gathering as the study progressed. My initial plans for the project involved discourse analysis of the game and a small survey, though these were expanded upon as new sites of gathering were discovered and gamers became interested in my project.

The gamers I was interested in were located across both the physical and digital worlds. Physically, the units and their members existed across Europe, North America and Oceania, which I had anticipated. However, through my use of Bruno Latour's (1996) notion of actor-network-theory, I came to realize just how sprawling this network of social relations really was. Digitally, the spaces were more complex and mobile than their physical counterparts. Many were fleeting, existing only when gamers gathered and created the space, while others had a basic, enduring digital structure that gamers could manoeuvre within. These spaces included *ArmA 3* servers, Twitter, Reddit, forums, blogs, Twitch streams and TeamSpeak servers.

Preliminary investigations into these connections took place on Twitter, after an *ArmA 3* gamer contacted me due to the use of a hashtag, ²⁶ #arma3, in my Twitter bio. Following a brief conversation with him regarding my research area, he provided a list of digital spaces where *ArmA 3* gamers gathered and strongly recommended Twitch and Reddit as field sites. From there I followed a snowball sampling method to navigate the networks of online communities dedicated to the game. This meant traveling to dozens of different sites of social gathering. However, during my travels along hyper-link highways between cyber-villages, it became clear that if I wanted to understand the complexity of the community, my initial methods would not be enough. Drawing on the work of Boellstorff et al (2012b) on virtual ethnographic methods, I expanded my methods to include autoethnographic work, discourse and content analysis, a survey, participant-observation and a number of interviews using a variety of technologies.

The nature of this digital network precluded any attempts to locate one particular field site as the dominant site within the culture, which would produce a hierarchy of relations. It forced me to focus on the connections *between* these sites, or how each one fit together to form a cohesive whole, as *ArmA* 3 culture could not exist if it were restricted to the game landscape (Latour 1996:371). To borrow from George E. Marcus' work on multi-sited ethnography, I sought to "follow the people" as they traveled from game to forum to YouTube and back in

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²⁶ Hashtags are metadata tags used to identify topics or ideas and aid in Internet searches. I argue they are also symbolic packets of meaning, with some carrying with them culturally specific meaning beyond the word itself (example: During the Arab Spring #Jan25 meant more than a day). See Bruns and Burgess 2011.

order to learn where these sites of social gathering were located (Marcus 1995:106). This mobility necessitated an emphasis on the *flow* of people and ideas along these connections, in order to understand how the community and each site functioned and contributed to milsim culture (Markham and Lindgren 2014). What purpose did Reddit serve, or a group website or the database of declassified army documents? But also, how were they all connected?

Field sites and data types

As noted above, fieldwork for this study took place in a variety of digital spaces, which yielded a variety of data, obtained through different methods. Some sites required multiple methods and techniques and in turn produced multiple layers of data in unexpected ways. My networked approach, which focused on flows of information and people, lent itself well to snowball sampling. Though a more accurate term to describe the immense amount and layers of data I encountered might be avalanche sampling. Interviews and conversations were both of synchronous and asynchronous, due to issues of distance and availability.

Table 1. Qualitative Data Sources and Types

Field Site	Methods	Data Type
Twitter	Informal conversations	Text; visual
Reddit	Content analysis; Discourse analysis; Informal conversations; Survey	Text; survey; video; visual
Twitch	Participant-observation; Content analysis; Unstructured interviews	Text; audio; video

 Table 2. Qualitative Data Sources and Types Continued

Field Site	Methods	Data Type
Group websites and blogs; Community websites	Content analysis; Discourse analysis	Text; video; visual
Visual media sites	Content analysis; Discourse analysis	Text; video; visual
TeamSpeak	Semi-structured interviews; Focus groups	Audio; text; digital
ArmA 3 (in-game, solo)	Content analysis; Autoethnography	Audio; video

Twitter. One evening, before I had even downloaded *ArmA 3* on my computer, my cellphone buzzed, indicating I had a "mention," or a public message. An *ArmA 3* gamer had contacted me due to the use of a hashtag (#arma3) in my Twitter bio. A simple "nice bio" message evolved into an evening-long conversation back and forth about my research interests. He provided a list of digital spaces where *ArmA 3* gamers gathered, recommending Twitch and Reddit as must-visit field sites.

Twitch. The major site of social gathering my initial Twitter informant directed me to was a website known as Twitch (www.twitch.tv). The site allows gamers to live stream their video-games footage for others to watch and comment on through a text-based chatroom. Initially I was focused on the stream recommendations of my Twitter informant, but it became apparent that their gaming practices were markedly different from the milsim culture I was lead to

believe existed in *ArmA* 3. While it was interesting to watch the streams, I was sceptical of using them in my thesis due to the lack of modeling and simulation.

Reddit. During my time on Reddit, the other site my Twitter informant recommended, I learned more about the variety of gameplay styles in the *ArmA* 3 community. Reddit is a vast Internet discussion page, with a variety of "subreddits," or specific forums, dedicated to individual topics such as r/gaming, r/cooking or even r/anthropology. Many gamers congregated on the r/arma subreddit to share stories of their recent gaming exploits, ask questions, advertise their unit and share gamer-made multimedia. This yielded a vast array of data, from textual data for discourse analysis (e.g. conversations about the latest weapons mod) to visual data for content analysis (e.g. a photo album of ingame snapshots telling the story of a recent mission). Video data was also common, with many gamers posting short clips, montages or full-length missions.

Survey. Using r/arma as an access point to over 20,000 gamers who subscribed to the subreddit, I posted a qualitative survey (see Appendix 2) aimed at generating a basic understanding of what *ArmA* 3 was, how people played it and whether or not it could be considered realistic. Through the survey and my time on r/arma I was also made aware of a number of gaming clubs dedicated to the game known as "clans" and that some of these clans were specifically interested in realistic combat gaming, rather than the roleplaying or battle royalestyle that the Twitter informant initially pointed me to. The members of a self-described "realism unit" posted links to their website on the subreddit as part of an attempt to recruit other gamers interested in milsim.

Twitch revisited. During my time observing this initial group (website and Twitter feed), I began to notice that words such as 'milsim' and 'tactical' were commonly occurring in their posts. Refining my search to include these local terms, I began to trace links to other realism groups on Twitch and found that they were abundant. After a few hours of watching the Unit and other groups play, it was clear that Twitch was in fact the rich field site I had hoped for. It had multiple levels of co-production, interaction and access, and the groups paid great attention to modeling and simulation.

Returning to Twitch, I was able to carry out the hallmark of traditional ethnography, participant-observation, with the milsim community I had expected to encounter. The webpage consisted of live video footage that I was able to record and collect numbers screenshots throughout, which were transcribed and used content and discourse analysis on the audio and visual data. Though I was unable to join the streamer in-game, in addition to the video footage, audience members were able to banter back and forth in the associated chatroom about the game footage, ArmA 3 and life in general. These conversations, which I often participated in, also proved to be a rich layer of data. It provided me with a greater understanding of the game's mechanics and content, as well as the culture of the community. Some streamers interacted with the audience members, who at times were also participating in the game itself, while carrying out these extra-game conversations on Twitch with the other audience members. During one stream I discussed the game with the streamer, who responded verbally; the other gamers, who responded both verbally, if their avatar was close enough to the streamer's, or by text if they were too far away; and the nongaming audience members, who were limited to text-based chatroom. This provided layer upon layer of data.

Group and community websites. The groups I followed streamed often enough for near daily participant-observation and over 100 hours of this multi-layered data collection. From their Twitch streams, a number of these groups directed viewers to their comprehensive websites, blogs and Twitter pages dedicated to their gaming exploits. Many of these sites were located by searching the comprehensive *ArmA* 3 group database, www.armaclans.com. The site included brief bios of hundreds of gaming groups, as well as the links to their pages and contact information, all of which was curated by the groups themselves. On these pages, these groups posted their doctrine, training regimes, stream times and write-ups detailing their latest missions for use by members and potential recruits.

I also spent a great deal of time traveling around the website ArmaHolic (www.armaholic.com). This site was a game modification (mod) database, where gamers shared their custom made mods. This site provided insight into what sort of changes were desired by the community, often pointing to gaps in Bohemia Interactive's models, which the gamers sought to negotiate. The mods themselves also illustrated gaps in the modder's models, as discussed in chapter 6. The site provided textual data in the form of the modder's description and commentary from other gamers, as well as visual, audio and video data from the media uploaded by the creator and users.

Visual data sites. Group webpages and Reddit posts also contained links to YouTube pages and Imgur albums,²⁷ which included archived footage and images, as well as commentary on the media by the original poster and viewers. This data was interesting, in that the archived footage was often selected by the gamers and represented the best missions or even just a montage of the best parts of various missions. Similarly, the photos ranged from curated collections multiple screenshots that told a story, not unlike a scrapbook, to heavily photoshopped screenshots. This was in contrast to the live streams, which were raw and unaltered, with commentary that was often in the moment. As one of my informants told me, "I record all of our streams. But I don't keep the garbage ones." This necessitated a sort of untangling of the data, an organization of raw and altered media, all of which proved useful in my analysis. These digital media spaces became rich field sites for multi-layered data, which aided in my understanding the structure and organization of the groups, as well as the multiple interpretations of what meant it to be a milsim group. Furthermore, it illuminated the process through which these groups produced and employed models and simulations.

TeamSpeak and *ArmA* **3 missions**. Through these varied field sites I was able to contact a number of groups and individuals to participate in my study, who responded with varying degrees of interest. The Unit, however, provided a great deal of interest in the project and became an anchoring point in a fluid and fleeting subculture. Though the scope of my research was limited in terms of

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²⁷ Imgur is a photo sharing website (http://imgur.com/).

groups to work with, what I sacrificed in breadth of study, my work with the Unit more than made up for it with depth.

During my work with the Unit, two crucial field sites for this project emerged: TeamSpeak and *ArmA* 3 missions. TeamSpeak is a Voice over IP (VoIP) program, similar to Skype, which requires a password to enter specific servers like those used by the Unit. It functions as an audio based chatroom, with one server having multiple 'rooms' gamers can enter to have verbal conversations with one another. Intra- and inter-room text based communications are also available on TeamSpeak and allow members of rooms to share links and text communication without interrupting the person speaking, as well as to communicate privately with gamers in other rooms without leaving the current conversation. During missions, unit members gather into one room to facilitate ingame verbal communication.

Individual members were interviewed through TeamSpeak for between one and two and a half hours in a semi-structured format. These interviews were not limited to audio-based communication, rather, links to webpages were constantly sent between participants through the text-based chat feature and at times separate, off-topic conversations were conducted parallel to the verbal conversation. Thus multilevel communication became a crucial aspect of the interview process. This layered mountain of data was amplified when TeamSpeak was used in game, as they gamers could also set their voice to whisper, normal or shout, to communicate (or not) with others at various distances. Gamers were making conscious decisions about whom they wanted to

speak to, depending on the subject and selected the appropriate media to do so. As a result, I had to consider the type of communicative channel or medium, in addition to what was being communicated (Broadbent 2012:136, 139). These "modalities of articulation" were reminiscent of codeswitching, though the term 'channelswitching' more accurately encompasses the movement between "different technological modalities of communication (Boellstorff 2012a:47).

TeamSpeak was selected as the interview technology as this was the communication tool the Unit used in-game to communicate with one another. As such, I hoped this would make them more comfortable with being interviewed. Some of the interviews were one-on-one, carried out in the 'Officer' rooms, which were in theory private areas where confidentiality could be guaranteed. In practice, this group did not maintain strict hierarchical command structure and members of the Unit would pop in and out of these offices, inserting themselves into the interview. Other interviews intentionally had multiple participants and were grouped together due to similar roles in the Unit, which I hoped would allow them to build on one another's explanation of their gaming practices. Due to technical issues, one interview was conducted over a number of days and concluded via email responses. Causal conversations over TeamSpeak and through Twitch were also a part of the study.

In addition to interviews, participant-observation was conducted with the Unit through the TeamSpeak servers during training sessions and battle drills, while visual data was collected by simultaneously watching the events on Twitch. Using Twitch and TeamSpeak enabled observational research when skill level

and technological restrictions inhibited in-game participation. This allowed for the collection of data as it 'unfolded,' rather than as it was elicited, or that which could not be articulated in speech alone (Boellstorff 2012a:55).

The *ArmA* 3 in-game world was another field site for this study. Visually, this site encompasses a multitude of environments and landscapes modeled after the real world islands of Lemnos (Altis) and Agios Efstratios (Stratis). Time spent at this site was predominantly devoted to combat missions or training exercises. Here, gamers would 'load in' and perform the necessary actions for their mission and logout once it was completed. Non-combat related interactions appeared to happen outside the site in either TeamSpeak chatrooms or in other games. This site produced rich, visual, audio and video data that spoke to what sort of modeling practices were important in the gaming itself, not just in community relations. Here, gamers would use the proper jargon, military tactics and resources as a means of embodying the role of soldier. It is tempting to place the site at the top of a field site hierarchy, as this site was where the gamers most often embodied the role of the soldier, unlike on Reddit where they enacted their civilian roles. In ArmA 3, more modeling and simulation took place, as it was where they were most likely to get the real world military experience, which would arguably not occur in an ArmaHolic forum discussion. Despite this site being the epicentre of modeling and simulation, the connections between this site and the others are also of interest. Without armaclans or Reddit, it would be markedly more difficult for individuals to find groups that suited their gameplay style and requirements (see chapter 5 on spoil-sports). Without sites like ArmaHolic, mods

would not be as easily accessible and in-game modeling would decreased (see chapter 6 on realism mods). As my data has illustrated, in many ways it was the flow of people and information from site to site that produced and maintained this community, rather than the game itself.

Ethics and positionality in the field

Throughout the project I was expected to follow the ethical guidelines of my discipline, as laid out by the American Anthropological Association, and the University of Lethbridge. However, due to the digital nature of my research, I confronted these requirements in rather novel – and at times frustrating – ways.

For this project, individuals were actively discouraged from revealing their real world names or other identifiable information in accordance with my ethical requirement of maintaining confidentiality and anonymity. This study also restricted its demographic reach to those above the age of 18 due to the graphic and violent nature of the game. Though deception was a possibility in this regard, many milsim groups have age restrictions as well and I worked with those that required members to be 18 or older. These measures served to protect the subjects of the survey but also hopefully allowed for more forthcoming informants (James and Busher 2012:179).

Ethical issues arose in this study when the digital space was not easily defined as being public or private. Many of the spaces visited in this study can be conceived of as existing in, and transitioning between, both states. TeamSpeak servers, for example, were private as they required a password to log onto the

Server and were group specific.²⁸ However, seemingly private in-game

TeamSpeak conversations were made available to the public when streamed live
on Twitch by other unit members. This begs the question of whether or not these
conversations could be considered useable data. Are these private discussions,
even if gamers know others are watching? Are they exempt from confidentiality
and anonymity protocols if the subject matter is 'inoffensive' (SSHRC 2008:8)?

For the purpose of this project, ethical protocols ultimately followed those set
forth by the Interagency Advisory Panel on Research Ethics and the AAA, with
other scholarly contributions informing my ethical position throughout (James and
Busher 2012). As such, Reddit and Twitch streams were deemed to be public
spaces due to their inoffensive content, though every effort was made to obtain
consent and maintain anonymity regardless.

Another aspect of conducting fieldwork online is the upending of traditional power dynamics in the field. Since the "Crisis of Representation" (see Clifford and Marcus 1986; Marcus and Fischer 1986), anthropologists have become mindful of how other cultures are represented in ethnographic writing and now acknowledge that power is derived from "(a) the individual who wrote the work, (b) the textualized persona of the narrator, and (c) the textualized persona of the field investigator" (Rosaldo 1986:88). However, other scholars note that in the field, investigators have little power over those who are studied, especially compared to other fields. Informants may leave conversations or deny the anthropologist entry to particular spaces (Cassell 1980:30). This is often amplified

²⁸ Public servers do exist, but were not used as field sites for this study

on the Internet, particularly with asynchronous interviews such as those conducted via email correspondence. Here, respondents may not feel as pressed to respond as they might in a face-to-face interaction. Additionally, it is rather easy to delete or ignore emails if participants become busy or disinterested. Depending on the medium used, informants may feel more inclined to open up (e.g. a shy individual responding via email), or it may be difficult to build and sustain rapport if there is a lengthy period of time between communications (James and Busher 2012:179-180).

Ethics is not limited to the way in which informants and communities are influenced or affected by anthropological research. Throughout this project my positions as a woman, gamer and academic often conflicted with ethical obligations. In the months before this project began, the controversial Internet campaign, #GamerGate, began. This campaign was perceived by supporters as being dedicated to maintaining and policing ethics in journalism. Others argued, however, that it was an Internet-based harassment campaign aimed at women gamers, designers and media critics. High profile attacks against Zoe Quinn, Anita Sarkeesian and Brianna Wu, have all illustrated a more insidious side of the movement. Additionally, and perhaps of greater concern for this project, are the instances of #GamerGaters attacking women doing digital research and their online research data.²⁹

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²⁹ Jay Hathaway, "What is Gamergate, and Why? An Explainer for Non-Geeks," Gawker, October 10, 2014, http://gawker.com/what-is-gamergate-and-why-an-explainer-for-non-geeks-1642909080.

This was the context for this project and it influenced my engagement with ethics and positionality. I self-identify as a gamer, which affords me a certain fluency in the gaming community, as well as status as an insider. However, in some video-game communities my presentation as female marks me as an outsider and this can be a precarious identity to embody. Often in my own gaming practices I avoid broadcasting my position as a woman. I use gender non-specific usernames or my initials rather than my obviously female first name. If other gamers assume I am male, despite my female avatar, I rarely correct them. This is done to limit the amount of misogynistic trolling I am subjected to online, however, this practice of concealing my gender was not compatible with my research ethics. According to my ethical requirements, it was of the utmost importance to be transparent with participants, which generally meant disclosing information about the study and its sponsors. The University of Lethbridge's Research & Innovation Services took transparency one-step further by requiring the researcher

provide the *name of the researcher, along with their institutional affiliation, and contact information* for questions/clarification about the research project. Also include the following statement: "Questions regarding your rights as a participant in this research may be addressed to the Office of Research Ethics, University of Lethbridge (Phone: 403-329-2747 or Email: research.services@uleth.ca).³⁰

I argue this ethical obligation places the researcher, and the research data, in a position of vulnerability when dealing with a potentially hostile community. As a female academic researching a predominantly male online community, the threat

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³⁰ University of Lethbridge, "Application for Ethical Review of Human Subject Research, 2012:12, emphasis added.

of #GamerGate individuals was one to consider. Doxing, the practice of finding and releasing a person's personal information online, and trolling were very real concerns for me and my work. As my ethics also required that I not collect identifiable information on my subjects – information that would be easy to mask or manipulate in a virtual environment – I found myself navigating an uneven playing field for digital selves wherein my informants held a great degree of power achieved through access to personal information.

Thankfully, my project did not include any harm to my various "selves" (physical, digital, etc.) or research, only a handful of strange gender-related hiccups discussed in chapter 7. However, informants from the milsim community I worked with did track down my family members' digital selves. While I can accept my vulnerability in these communities, it was difficult to navigate the potential repercussions for family and friends.

This research project found its focus when I entered the field and encountered its ups and downs. Through following hyper-links and recommendations from other gamers, I was able to find a unit to integrate myself into. The project challenged my ability to maintain the ethical obligations placed on me by the discipline and university, while navigating vulnerabilities to myself and my friends and family.

Chapter 4: Theoretical orientations

Reflexivity in modeling and simulation

The theoretical orientation for the project is first and foremost rooted in Schneider's (2011) modeling as a process for understanding the world and social relations, as well as a means for understanding how discrepancies arise between perceptions of how the system really works (gaps). This understanding of modeling, buttressed by Baudrillard's (1983) simulation, Huizinga's (1980) "magic circle" and Said's (1979) Orientalism, forms an effective framework for understanding and making sense of the complex (digital) social realities of milsim communities. In this chapter I present these four theories and how together they form my framework. Throughout the following chapters, each theory will be explored in greater detail and augmented with contemporary anthropological discourse.

In the following section of my thesis I outline the definitions for modeling and simulation as employed herein. These processes make clear the continual production and negotiation of gaps as discussed in the following chapters.

However, I would be remiss if I did not qualify my own modeling practices and highlight the need for flexibility and data-led models, rather than the rigid models of my anthropological predecessors discussed below.

Throughout my fieldwork I was presented with data that did not fit my initial theories or models of what milsim communities were really like. While at first I felt "cheated in some devious way," I soon came to realize that the divergence from

my models often illustrated the diversity of modeling and simulation practices used by the gamers and groups. Gaps were actually sites of intrigue, rather than something to be made to fit; they were sites of creativity and could be considered productive. Gamers had different rules for safeguarding their magic circle and for identifying what constituted a "spoil-sport" than expected, as well as different models and ideas for simulating them within the community. The social reality of the *ArmA 3* milsim community was that not all the gamers were alike and their community was not homogenous, static or easily understood with thin description (Geertz 2000c:7). Thus, it was with this perspective that their social relations and behaviours were understood and described in the following chapters.

Modeling, simulation and gaps

Modeling and simulation are common to the layman's vocabulary, however, in academia they can come to have distinct and specific definitions. In this section of my thesis I outline the definitions for modeling and simulation as employed herein. Additionally, the framework through which my data was analyzed is established and my theoretical orientation is provided to the reader. This makes clear the continual production and negotiation of gaps as discussed in the following chapters.

In her discussion of models, Shirley Ardener (1975:xi) describes her use of the term 'model'

By the expression 'model of women', for instance, I mean the set of ideas which together represent women in the minds of those who have 'generated' the model. When the expression 'women's models' is used, the reference is to the concepts which women themselves generate in their minds which will, of course include 'models of women'). Everyone probably perceives the world in a unique way, but nevertheless people are

not so independent that some do not hold some very close ideas, and therefore it is not unreasonable to talk sometimes of a group sharing or generating a common model of society or common models of its components.

Such an understanding of models is used in the following analysis. Thus, 'model of the real world' refers to the sets of ideas held by the person generating the model (e.g. a gamer or specific group). Similarly, 'gamer models' are those generated by the gamers and their community themselves.

This conceptualization of modeling is first and foremost a *process*. It is the act of organizing the complex messiness of social reality into a knowable and understandable form, or, into a model. Models therefore are unique to individuals and their experiences. For example, how I, a gamer and an anthropologist, attempt to organize and understand the chaotic connections of a video-gaming community would be different than how my grandmother might engage in the same process. Our 'models of the real world' would be unique. Thus, modeling can be conceived of here as an internal process, within the gamer's mind, derived from social and collective ideas. At times this modeling manifests at the level of the collective consciousness of the community. Such instances involve the pooling of individual models into one that each member has deemed acceptable and will carry forth into their gaming.

Similarly, simulation is also perceived of as a social process. Here it is used to explain the employment of the model possessed by the gamer or the anthropologist. In the case of the gamer, who possesses a particular model of what the real world militaries are really like, enacts the model through simulation.

If, in the model, the soldier speaks in a particular way, the gamer will also speak in that manner. The act of speaking is one part of the simulation process.

Therefore, simulation is the external process of acting out the model within the game or sites of social gathering. As a result, simulation, as carried out by different gamers and groups, is specific to the individual gamers and communities. This understanding is employed herein as a means of explaining the spectrum of behaviours and diversity within the ArmA 3 community.

I contend that modeling and simulation can be conceived of as two halves of mechanism that produced and sustained the ArmA 3 milsim community. These two processes worked in tandem to reproduce a real world military experience online:

Stage 1: real world experience (what war is really like) → modeling process → model

Stage 2: model → simulation process → virtual experience (milsim)

Between each part in the process gaps emerged. The term gap, as used here, refers to the distance between the real world experience and the virtual result.

These gaps emerged at a variety of levels of modeling and simulation throughout my fieldwork.

Gaps are fleeting and fugitive and therefore difficult to pin down with any stability. This is due to the ever-shifting nature of social reality and the reorganization of internal models in order to compensate for these constants shifts. Many members of the ArmA 3 community actively addressed gaps, however, these negotiation attempts often in turn produced new gaps. Despite their slippery nature, I have identified 4 levels of semi-permanent gaps in the milsim experience.

First, gaps existed between the 'real world' and the game. This was due to the sensory and physical restraints of a virtual experience. ArmA 3 could not replicate all aspects of a physical or biological experience, such as smell, touch or lethality. As a result, there was an enduring, inevitable gap between the real world experience of war and the virtual battlefield.

Second, a gap existed between the game, as produced by Bohemia Interactive, and what was expected by the gamers. Within the milsim community 'military-buffs' were numerous and as such their expectations for what a realistic war game should include were high. They knew what weapons, vehicles and technologies should be present and identified easily the gaps in what was provided. Bohemia Interactive produced a futuristic military experience, as the game took place in 2035, however, this was met with dismay from many milsim gamers who wanted the content of the game to match their real world models, which were devoid of hyper-futuristic technology and uniforms. As with the real-to-virtual gaps, the gamers' models of what a video-game should look like did not fit the virtual reality they were confronted with.

In order to address the second-order gaps, many gamers turned to roleplaying (chapter 5) and modding (chapter 6). These gaming practices involved models derived from real world militaries and were carried out through the process of simulation. These processes in turn produced a third level of gaps when the simulation did not quite match or fit the real world source of their model (e.g. a role-playing practice deviated from the real world inspiration). Finally, fourth-level gaps emerged between individual gamers and between different milsim groups. These gaps were the result of individual gamers possessing different models of what a real world military experience was actually like. As such, these gaps can be explained as gaps in a modeling practice. Gaps between groups emerged when a group collectively curated a particular model under which they would operate under that diverged from another group's collective model. This resulted in a variety of milsim units that employed different role-playing and modding practices that were reflective of their tacit or local knowledge. These gaps were also rooted in different modeling practices, but were also influenced by different simulation practices. Gamers might have agreed on the model used, but chose to enact it in different ways or to different degrees (e.g. using an enemy identity mod in different ways).

As a result, it is easy to see how the gaps in the modeling and simulation processes were constantly shifting and transforming themselves, exacerbated by the conscious negotiation of gaps by the gamers. The discussion above represents how the gaming practices of the milsim community were organized and understood throughout this project. To buttress my model for data analysis, I have employed the work of Schneider (2011) and González (2013) on modeling and gaps, Baudrillard (1983) on representation and simulation, Huizinga (1980) on the magic circle, as well as Said's (1979) Orientalism. These scholars provided the theoretical perspectives and orientations that I incorporated into my own modeling process. As such, in order for the reader to understand the

modeling process, it would be beneficial to elaborate on the work of these scholars.

Some muddles (gaps) in the models

Daniel M. Schneider's (2011) work illuminated the gaps in the modeling practices of the now classic anthropologists, such as Levi-Strauss, Evans-Pritchard, Radcliffe-Brown and Leach. In his work he argued that each of these anthropologists produced a model, a fabrication, of empirical reality as a means of understanding the people they studied (2011:453). Throughout the piece, Schneider describes and dismantles the modeling practices of each anthropologist, illustrating what aspects of society and social relations were left out of models, or where models stretched too thin to fit certain aspects of society. Regardless of which kinship theory the scholar used, Schneider believed that there was not a single model capable of perfectly reflecting empirical reality, of ordering the actual behaviours of the people (2011:461).

Schneider also took anthropologists to task for claiming that certain 'rules' would produce a particular 'kind' of society (2011:465). These rules formed the anthropologist's models that were in turn used to analyze their ethnographic data. However, issues arose when the model did not fit the data collected, or, when the kind of society observed did not fit the preconceived rules. What was so problematic about the modeling practices for Schneider was the overwhelming authority and faith the anthropologists put in their models. In his discussion of Needham's work, he notes that:

Needham takes the ethnographic report and matches it against his model, his type. Every deviation of the ethnography from one or another element

in the type suggests to Needham that *the ethnography* is wrong in one way or another. Needham never alters his type to accommodate the ethnography. Needham never changes his model to fit the data." (2011:481)

Here, one can see that there was a gap between the empirical reality recorded by anthropologists and the models used to interpret the data. This gap could have been negotiated through the reorganization or restructuring of the model.

However, Needham expected to find "free in nature, a concrete system which precisely replicate[d] his type" (2011:481). Thus, the gaps between the model and empirical reality were left unchallenged. This behaviour was typical of the anthropologists who had a "tendency to erect a typology and to defend it to the death against all corners; even against the facts where these prove stubborn" (2011:483).

This stubborn defense of, and overconfidence in, modeling was picked up by Roberto J. González (2013) in his critique of what he calls the US Department of Defense's cybernetic crystal ball. This crystal ball was comprised of a series of projects designed to predict the social behaviours of insurgents, terrorists and civilians in war zones. The overarching goal for the Department of Defense was to "enable the DoD and the US Government to understand and effectively operate in the human terrain during non-conventional warfare and other missions" (González 2013:85). This, then, can be understood as attempts to model the social reality (human terrain) on the ground in these regions as a means of understanding and organizing the complex messiness of these realities.

These programs involved complex computer systems that ran multiple behavioural models simultaneously to forecast the motives, responses and future

actions of terrorists and insurgents. These systems used field data from anthropologists, sociologists, political scientists, religious studies scholars, as well as data collected by soldiers and military personnel, in order to ensure the accuracy, authenticity and completeness of the models produced (González 2013:69). However, as with the models fabricated by the classic anthropologists, the models produced by the cybernetic crystal balls did not fit or encompass the social or empirical realities they were attempting to understand (González 2013:73). Such models were reductionist, flattening diverse and complex human beings and cultures. Furthermore, the ethnographic research and data sought was made to fit the models, to confirm the pre-existing theories of the scientists. It was sourced under such strict and rigid quidelines it was inevitable that it would appear to fit (González 2013:78). This critique was reminiscent of Schneider's discussion of the muddles in Needham's models, thus it should come as no surprise that gaps emerged between social reality and the models produced by the Department of Defense's modeling processes. As Gonzalez noted, these gaps manifested as inaccurate or incomplete behavioural forecasts and would only become more precarious if the projects continued to rely on flawed models and selective data (2013:79).

In both critiques of modeling, it was seen as a human act, a process in which individuals attempt to make sense of social reality by organizing and arranging it in a way that makes sense and confirms existing theories. In both processes, the models produced were based on existing understandings, or theories, of how the social reality might work and data was sourced to confirm the

models. Out of both processes gaps emerged and threatened the accuracy, completeness and authenticity of the model produced. This, I contend, was the same process used by the milsim community in *ArmA* 3. Gamers possessed theories about what war was really like, informed by their social upbringings and cultural boundaries, as well as their consumption practices.³¹ Selective data was consumed by the gamers and applied to these theories. This process was a means of organizing the data into an understandable and concrete model of what war is really like, a model that confirmed the theory.

Data (e.g. media, scholarly work, first-hand knowledge) → Modeling (selected data is applied to/made to fit internal theories) → Model (individual understanding of what war is really like is produced)

This process in turn resulted in gaps for the gamers' models in much the same way gaps emerged for the others. However, where the gamers' processes diverged from those before them was in their self-identification of the gaps in their models. Gonzalez argued in his critique that anthropologists could "hold up the mirror for critical self-reflection" to the US Department of Defense as means of identifying the gaps (2013:82-3). This mirror, I contend, was not necessary for many gamers, who had already identified the gaps and attempted to restructure their model when given data that did not fit. This was illustrated during the simulation processes of many groups, wherein they enacted their models to produce the desired real world experience on the available virtual platform, improving and enhancing the original game delivered by Bohemia Interactive. Modeling and simulation processes were attentive to what I refer to as the

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³¹ These theories were based on other existing models of social reality

"realism trifecta," of accuracy, authenticity and completeness. For the gamers, these qualities determined whether or not the model *adequately* fit with reality, or rather, if the gaps produced were manageable enough that the milsim could still be enjoyable (Hoglund 2008). The understanding of "adequate" varied from group to group, as each had different notions of what was accurate, authentic and complete.

(Mil)simulation and simulacra

Simulation, as used here, was considered a process through which a model was enacted and used to reproduce an experience. This process was typically illustrated in the actual gaming practices of the *ArmA 3* community, those instances of milsim gameplay that took place throughout the virtual landscape. Milsim, short for military simulation, was by definition the process of simulating, of enacting, a military model in order to (re)produce the desired experience. During these milsim gaming sessions, gamers enacted their models of what war was really like through active simulation, which in turn helped produce the desired experience. For example, through the modeling process a model of how soldiers behave in real life was produced, which would in turn be enacted by simulating this behaviour online. If the soldiers would use a particular command in real life, then the gamers would incorporate this into their gaming process. The simulation process was therefore the practice of making an internal conceptual model real through an external action.

Model (what war is really like) \rightarrow Simulation process (practice of acting out the model) \rightarrow Experience (milsim gameplay)

These external actions (simulation process) varied and were often influenced by the gamer's or group's understanding of the gaps in the models used. Often the simulation process was meant to address gaps in other models (e.g. role-playing a real world tactic was meant to combat a gap in the original game's content). However, gaps also arose from the simulation process, illustrated by the differences between the virtual and real world experiences of war (e.g. not all tactics could be simulated in *ArmA 3*). Throughout my study I found groups were less likely to identify and address the gaps produced during the simulation process (e.g. extreme role-playing groups discussed in chapter 5). This was reminiscent of the classic anthropologists, who held fast to their models and abstractions, despite their muddles. Their simulations were the enactment of their models and therefore any gaps in the process threatened the validity of the models and more importantly, their experience.

The notion of simulation as a process of enacting a symbol or model can be related to Baudrillard's (1983) work on the process through which representations move into what he terms simulacra. According to Baudrillard, "to simulate is to feign to have what one hasn't" and to "produce the symptoms" found in the real experience. For example, a person could feign an illness and produce symptoms of the illness, such as a cough or clammy hand (Baudrillard 1983:5). It is therefore an act, a *process*, through which a model or sign is used to stand for the real experience. The model does not spring out of culture instantaneously, but rather is curated and transformed. Furthermore, simulation is "characterised by a *precession of the model*, of all models around the merest fact

- models come first" in a world besotted with the fake and hyper-real (1983:32). The map, then, precedes and stands for territory, much like the kinship models stood for and preceded the populations the classic anthropologists studied. These models, he argued, were also heavily controlled and "mutated" by the media (1983:55). This was well illustrated in Baudrillard's (1995) three-piece essay collection on the Gulf War. He argued that the Gulf War would not take place, was not taking place and did not take place. While the war did in fact take place on the ground, the American public could only see it as a simulation. News stations aired video clips of little blips on computer screens that came to represent bombings in Iraq. The images *feigned* the symptoms of war and became simulacra, a model that stood for a very real experience and preceded the actual acts of war in the mind of the American public.

I contend that the process of simulation in milsim gaming is markedly similar to, and in fact an extension of, Baudrillard's exploration as described above. In the most basic sense, the process of simulation in *ArmA* 3 was to *feign* the role of the soldier, which in turn produced symptoms of a 'real' experience (e.g. proper protocol and rank hierarchies). Moreover, their models, which preceded these simulations and symptoms, were media derived and driven, just as Baudrillard claimed they would be. These media representations were, as Geertz (2000c:15) argues, interpretations of the second- and third-order. He notes that only 'natives' of the culture or situation could make first-order interpretations and everything else would be an interpretation of an interpretation. It is in this process of interpreting interpretations that the media mutates the

models and the consumers accept – and become infatuated with – the imitation of the real (e.g. imitations of Navy Seal operations in Hollywood films). Geertz proposes that 'thick description' is key to negotiating the social relations that produce these models of models. When using thick description, one is "sorting out the structures of signification... and determining their social ground and import," or, telling a wink from a twitch (Geertz 2000c:9). If one does not attempt to understand these layers of meaning, one risks the production of thin description and a muddled model.

Thus, simulation as it existed in the *ArmA 3* landscape can be seen as a process based on second- and third-order (or perhaps fourth- and fifth-order) models (or simulacra) and as such, gaps between the 'real' and the models influenced the simulation that took place and symptoms produced. The simulation processes also illustrated attempts at thick description, where gamers attempted to use their expertise (Holmes and Marcus 2005b) to discern the real from the fake and navigate the emerging gaps.

Such theoretical perspectives supplement the work of Schneider on the tensions in modeling practices, as both speak to the potential for muddled and mutated models as well as the implications of relying heavily on them.

Furthermore, the theorists lend support to my assertion that modeling and simulation explain and make knowable the inner and external workings of milsim gaming, the gaps that emerged out of such a process and the negotiation of those gaps.

Playing in the (virtual) magic circle

The use of modeling and simulation is hardly new to the field of game studies and these processes have been discussed using a variety of theoretical. One way of discussing such processes has been to use Huizinga's (1980) 'magic circle' in relation to play and rules. Although the scholars discussed below do not explicitly equate the magic circle with a model, I maintain that the concept is nevertheless useful for a modeling and simulation based exploration of play.

The notion of the 'magic circle' has been used by game studies scholars to explore the other-worldly and magical nature of play in video-games, specifically the bounded nature of these games. Play, in these games, has been theorized as something that is entered into and ceases to exist when the game ends (Salen and Zimmerman 2004). Scholars have problematized this assertion and argued that the magic circle needs to be re-theorized in order to "fit" certain game genres. Pargman and Jakobsson (2008) have suggested that the magic circle is not that magical, or even fun, in that gaming is often monotonous, routine and serious. Others have argued that the bounded nature of the magic circle needs to be reconfigured as a porous membrane, one that allows real life to pass into play and play into real life (Nieuwdorp 2005:6). Many of these criticisms have been directed towards games that are continuous, such as the massively multiplayer online role-playing games (MMORPGs). In these games play continues uninterrupted, regardless of individual gamer action. In the case of World of Warcraft (Blizzard 2015), the magical world of Azeroth continues to exist regardless of whether or not I, a player, logs on. While some scholars have gone

so far as to call for the doing away with the magic circle (Crawford 2009), I contend that the theory is still relevant for the study of *ArmA 3*, particularly when used in tandem with the work of Schneider on the tensions inherent in modeling practices.

Huizinga argues that sites of play – the magic circles – are "temporary worlds within the ordinary world, dedicated to the performance of an act apart," which adequately describes the ArmA 3 landscape (1980:10), as the game takes place in a landscape that, while it was always accessible on servers, did not evolve or continue in the gamer's absence. 32 Moreover, Huizinga noted, "all play has its rules. They determine what 'holds' in the temporary world circumscribed by play... as soon as the rules are transgressed the whole play-world collapses. The game is over. The umpire's whistle breaks the spell and sets 'real' life going again." (1980:11). These rules were the result of group members collectively curating real world knowledge of the military into field manuals and training lesson plans, or, turning data into a model through the modeling process and then enforcing them through the simulation process. Members co-constructed the rules they would play by and expected all other members to possess and abide by the same model. When someone transgressed these rules, the immersion was broken. This I contend was often because the gamer drew attention to the gap between model and reality; they exposed the fragility of their model causing others to feel cheated in some devious way.

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³² This was the case for units that played on private servers, as all the groups I studied did. Public servers could experience evolution and continuity in the same way MMORPGs did.

The gamer who trespassed against the rules, the model, in her simulation was considered a spoil-sport who "reveals the relativity and fragility of the playworld... [and] robs play of its *illusion*" (Huizinga 1980:11). For example, if a gamer began to use the radio in ways that did not fall in line with procedure, that not only transgressed the rule, it reminded others that they were only simulating and not actually real soldiers. Thus, the gap between the real world and the virtual battlefield was highlighted. As Schneider noted in his discussion of the tension between kinship models and reality, "when he [the anthropologist] is presented a structural model which departs from empirical reality, he feels cheated in some devious way" (Schneider 2011:402). The same can be said for those who are reminded that their simulation departs from empirical reality in unavoidable ways, despite the realistic nature of their models.

These individuals who transgressed the model and broke the rules of play were often cast out of the community or received reprimands. Huizinga's discussion of the spoil-sport is particularly relevant to role-playing in that it explains the spectrum of activities and simulation practices I encountered throughout my fieldwork. The spoil-sport, he argues, "in their turn make a new community with rules of its own" (Huizinga 1980:12). In *ArmA 3*, this meant that those who continuously exposed the gaps between the real world and the game in simulation, or between individual models, left the group to form their own units based on their models of reality and desired simulation practices. This alleviated the tension between models, simulation and reality (Schneider 2011) and preserved the magic circle for gamers.

Orientalism as a modeling process

The final theoretical framework that used in this project is the concept of Orientalism, as described and defined by Edward Said (1979). Orientalism, in the broadest sense, speaks to the ways in which people from the so-called Orient (e.g. Egypt and Iraq) have been depicted by Western literature, art and media throughout the ages. Said's critique and exploration of these representations are useful to my exploration of *ArmA 3* milsim culture as it frequently involved content derived from past and current military conflicts in the Orient (e.g. Iraq and Afghanistan), as well as representations of Muslims and Arabs. Thus, Said's discussion of the historic representations can be directly applied to these new digital representations.

One key aspect of Orientalism is the way in which it creates a binary opposition, a dichotomy between the West and the Orient, between 'Us' and the 'Other.' Where the West was considered civilized and progressive, the Orient was barbaric and backwards. People from the Orient, particularly Muslims, were perceived of as being lazy, savage and intellectually inferior, while the Westerner was the pinnacle of logic, rational thought and righteous behaviour (Said 1979:38). Women were portrayed as exotic, sexual and deviant, unlike the proper Christian woman (Said 1979:103). This process produced a flat, static and dehumanized version of a complex region, with multiple cultures, languages and histories.

Orientalism, as a process, is at its core a modeling process, not unlike those of the classic anthropologists and the kinship studies they conducted.

Thus, it has a history of being riddled with multi-layered gaps. The Orientalist perspective was founded on direct and indirect observations that were used to understand and make knowable the Orient and the Oriental. These observations informed art, literature and academic scholarship, which was in turn consumed by laypeople and scholars in the West. When writing on the Orient scholars used existing data that confirmed their suspicions and theories and avoided that which contradicted their models (Said 1979:41). This process of modeling produced a typology of the Orient and Oriental, a simplified model of a complex social reality and diverse region (Said 1979:97). This typology was presented as static and unchanging, while Orientalism was, in itself, processual. As one might expect, such flawed models did not fit the social reality they were meant to represent, instead, wide gaps emerged at various points along the modeling process, manifesting as racism and Islamophobia.

Problematic representations of the Orient are still found in Western media, which I argue throughout this thesis was frequently used as a model for what war was really like. In a comprehensive study of over 900 films, Shaheen (2003) argues that the flat stereotype of the colonial era was still employed in nearly every film ever produced that included Muslims or Arabs. In his documentary, *Reel Bad Arabs: How Hollywood Vilifies a People* (2006), Shaheen argues that "[from] *Imar the Servitor* (1914), up to and including *The Mummy Returns* (2001)" this stereotype ran rampant, equating Arabs and Muslims from Syria to the Sudan with evil, lecherous behaviours (Shaheen 2003:176). Furthermore, they were frequently cast as terrorists and villains in military-themed movies (e.g.

American Sniper 2014, Rules of Engagement 2000), which served as major second-order models for many milsim gamers. Thus, one can see how if the problematic representations of Muslims, Arabs and the so-called Others have been reproduced throughout the centuries in literature, art and now film, it would be very easy for that process to carry on into the digital world of video-games representations and produce a "techno-orientalism" (Consalvo 2006:124; Morley and Robins 2002; Schwartz 2006).

In addition to problematic representations in the media, Orientalism is key to understanding milsim communities because of how it has been employed by Western militaries, another model on which the gamers relied. In military discourse surrounding the enemies of Western nations, who were often Arabs and Muslims, an Orientalist framework was used.³³ An 'Us' and 'Other' dichotomy was enacted, one that framed men and boys as terrorists, al-Qaeda and Taliban sympathizers or future recruits, in contrast to the soldiers of Western nations who fought for freedom and human rights. Women and girls were helpless civilians in need of saving, unlike their liberated Western counterparts who moved freely, unmolested throughout society (Bush 2003a; Bush 2003b; Shaheen 2003; Stanford and NYU 2012). These Others were not only stripped of autonomy and agency by these Western media portrayals, they were dehumanized in the same way colonial authorities dehumanized their ancestors throughout the 19th and 20th centuries. They became static, overly-simplistic and undifferentiated

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³³ Discourse includes official statements from the Department of Defense and military publications, as well as military-funded films, such as *Black Hawk Down* (2001) and *Top Gun* (1986).

caricatures, rather than realistic representations of the dynamic and complex societies they really were.

I contend that these problematic representations were found in *ArmA 3* milsim content (see chapter 6 on enemy identity mods), content that was simply the next step in the centuries old reproduction of Orientalist representations. For the Orientalist, the "Orient is not the Orient as it is, but the orient as it has been Orientalized [modeled]" (Said 1979:104). This was true for many milsim gamers as well, as they were simply the latest consumers of Orientalist models and data: film, media and military discourse. Such flawed models were consumed as data and informed their own modeling and simulation processes, as well as the rules they enforced to protect their magic circles.

Chapter 5: Role-playing War

"But at the same time we're not a military unit and you know we're just role-playing it in the game and I think that role-playing it out of the game where you have to salute someone when he comes online is taking it way too far and taking it way too serious in the wrong aspect." - Utah

Becoming a (virtual) soldier through role-playing in the magic circle

As discussed throughout this thesis, the desire for quality milsim drove the modeling and simulation practices of many gamers and their groups. Throughout my fieldwork, no milsim behaviour illustrated dedication to modeling and simulation quite like role-playing did; it was the perfect example of my two-stage process. Gamers and groups formed complex models of what war was really like, ones that existed internally inside their minds or were codified in field manuals and lesson plans. These models in turn formed the rules of play that the gamer or group would follow during missions, meetings and other activities. Most in-game behaviours were dictated by these rules and can be understood as the enactment of models, or, as simulations.

Role-playing has a long and diverse history on and offline and therefore means different things to different people. For myself, role-playing brings to mind images of geeks and nerds acting out scenes from their favorite Star Trek episode or fantasy movie, but it can also include such behaviours as a child playing doctor. I argue that role-playing is more than simply dress-up, it requires action and embodiment. It is not enough to simply wear a Star Trek uniform in role-play, rather, one must act out the role assigned for the scene and simulate the character. In *ArmA 3*, serious role-playing gamers acted out the role of

soldier, which for many was not a role they had offline. For them it was not enough to merely look like a soldier (dress-up), they had to act, speak and move like one as well. I contend that these simulation practices were ways for the gamers to compensate for various gaps.

There was a spectrum of modeling and simulation processes in *ArmA 3* and as such, there was also a spectrum of role-playing activities. This spectrum was the result of different gamers coming to *ArmA 3* equipped with different models of the realities of war. These gamers tended to gravitate towards groups and units that held similar models and ideas about appropriate simulation practices. On one end of the spectrum were what I refer to as casual role-players who, while they may have had complex models, often chose to engage in little simulation practices. This process resulted in limited role-playing (e.g. using radio protocols).

Other groups focused on altering and improving their experience through simulation, often moving away from casual gaming into what some referred to as "serious fun." This meant more attention was given to in-game conduct and behaviour, which also meant moving away from the "run-and-gun" (Clarke and Duimering 2006:9) style found in other less realistic games like the *Call of Duty* or *Counterstrike* franchises. Where run-and-gun style involved gamers running through virtual environments, spraying bullets and causing chaos, serious fun turned towards methodical, tactical and slower gameplay styles. Typically, the latter involved complex modeling and simulation processes that manifested as serious role-playing.

This role-playing, especially with its strong connection to modeling and simulation, can be interpreted using Huizinga's (1980) concept of the 'magic circle' as a supplementary framework to Schneider. In the following section I identify the moments when the magic circle, or my model of what war was really like, was broken for me, as well as how these instances were related to being made aware of the gaps. I contend that the game itself in many ways was Huizinga's spoil-sport, who pointed to the gaps and broke my immersion.

Furthermore, I argue that these gaps could be – and indeed were – negotiated by the serious role-playing practices of milsim units.

On the gaps between offline and online worlds

In this section I contrast my experiences in *ArmA 3* embodying and role-playing the soldier with those of the milsim gamers in their online multiplayer missions, which provides insight into the gaps addressed by role-playing, as well as those that emerged because of it. Throughout, a discussion of the collapse and reconstitution of the magic circle makes clear the fragile and precarious relationship between role-playing and *ArmA 3*.

The anthropologist's gaps

As discussed in Chapter 1, my milsim experience began in the virtual reality (VR) simulator. The in-game VR system served to position *ArmA 3* as futuristic, as real world VR technology in 2014 did not reflect this model. Even the VR systems produced by Bohemia Interactive Simulations for real world militaries were not at this level of sophistication.³⁴ However, it would be feasible to see this technology

³⁴ See Bohemia Interactive Simulations, accessed May 26, 2015, https://bisimulations.com/.

appear by 2030s, the time period the game is set in. This was the first gap I experienced, where my model of what military training would be like did not mesh with what Bohemia Interactive provided.

I've spotted an overturned vehicle on the road and one of our guys is injured. Oh crap! Dead body. The enemies (still not 100% sure who they are or why they are anti-American) have just opened fire on a base. Radio chatter indicates this is not an isolated incident. "Sounds like a goddamn invasion!" Okay, now we have to run through the forest as it gives us more cover.

Ahh! We're taking contact. And I've been hit! I have the worst aim ever!

Did I not retain ANYTHING from VR training? This is seriously intense. My
palms are sweaty. "What the literal fuck?!" says Kerry and I am in total
agreement with my avatar (despite the many gaps between us).

(Field notes, 06 September 2014)

I died shortly after this section of gameplay. Kerry was "fatigued" from running to keep up with the other soldier, low on ammunition and I underestimated the lethality of the enemy AI I was attempting to engage. We were both without cover, but the enemy's aim was markedly better than mine. Red, semitransparent blood splatters framed my vision indicating I was wounded, then I found myself staring at the virtual blades of grass and seconds later everything went black.

Moments later I had respawned (resurrected) at my last save point and was given another chance to successfully engage that enemy. This was the second, and perhaps most obvious, gap in the game. In war one does not simply respawn after death. However, I respawned a total of 18 times during that first act and was only mildly inconvenienced at having to repeat a couple minutes of gameplay. Other gaps I experienced were related to Bohemia Interactive's

stylistic choices, such as audio and music score choices, rather than gameplay mechanics.

I really like the acoustic/environment noises. I can hear each of my footsteps! And the bugs sound great, I actually feel like I'm traveling through a forest with the bird noises. Also my heavy breathing when I run too much is pretty great, sounds like I'm actually struggling with the weight of my gear and running for great distances.

. . .

Oh. Oh I don't like the music. Why is there music when I'm sneaking through the forest? Apparently some of the gamers think this music is better than ArmA 2, it is more "soothing" than the previous soundtrack that tried to get everyone excited. But I think this soundtrack tries to do that too.

(Field notes, 14 September 2014)

Gaps for me included the audio, specifically the addition of music in certain scenes. Music evoked an emotional response to the game, with intense and dark sounding music increasing adrenaline and anticipation. The use of music to manipulate mood in this way was not unique to video-games, but rather it had a long history in film and plays (Bruner 1990). While this helped to create a cinematic experience, it was unrealistic given when it appeared in the game. Music would not be playing while I traveled through a forest, trying to maintain cover. It also drowned out many of the environmental noises that helped make the game sound realistic, such as footsteps crunching, birds chirping and the wind. When walking through an in-game forest I wanted to hear the sounds I would hear walking through a real world forest.

Hmmm... I don't know how I feel about the solo bits, where it's just Kerry against the world. I mean, I'm sure some guys get separated from their units and have to make their way to a friendly's base. But, this just seems like it's pandering to the gamer's need to be the solo-hero. Or are my

models of "this is what war is like" off? Are they the reason for these gaps? Are there muddles in my models?!

(Field notes, 27 September 2014)

Other gaps were more narrative based. Again, I often found myself thinking "this is what it would feel like to be in a realistic combat movie, not a realistic combat experience," especially when I was playing on my own. The game felt at times like an interactive war film, rather than the realistic combat experience. Additionally, I felt as if there should be more interactions between Kerry and the other avatars. Parts of the game positioned Kerry as a sort of lone-ranger, which seemed to be an overly romanticized portrayal of war. The conversations Kerry did have were typically over the radio and often very casual. At one point Kerry told Lt. James over the radio "with respect, Lieutenant, fuck you." Dialogue that did happen between my avatar, Kerry, and the other AI in the game were frequently short, robotic descriptions of their actions such as "cover me!" or "throwing smoke." Something seemed to be missing in these interactions, which made it very obvious that I, through Kerry, was interacting with avatars who did not have not real people behind them. This illustrated the inevitable gap between interactions with humans and the Al avatars, a gap that was the direct result of current technological restraints.

Gamer gaps

After spending a number of hours playing *ArmA 3*, and dying repeatedly, I had located a number of gaps in the game between what *I* knew of war and what I was provided. However, given my limited knowledge of what war was *really* like, I recognized that many of these gaps could simply be muddles in my models. As I

did not want to be like the anthropologists Schneider (2011) critiqued, I turned to some self-taught military experts of Twitch to address these potential muddles. I had watched hours of their gameplay in the months before I played the game myself as a means of familiarizing myself with the game and community. This time I wanted to know specifics about their gameplay styles. What gaps did they see? How did their gaming experiences and styles differ from mine? Did their ingame behaviours address their – or my – perceived gaps?

- [R1]: Actual, this is Alpha. Message.
- [R2]: Alpha, this is Actual. Send it.
- [R1]: Actual, this is Alpha. We're approaching rp2. 100 meters out. Over.
- [R2]: Alpha, this is Actual. Proceed with caution. There is a fortification out to your North.
- [R1]: Actual, this is Alpha. [Inaudible message]. Holding.
- [R2]: Alright. Second squad. First is moving onto our flank. Prepping A-T (anti-tank missile) to engage the Ifrit (mine-resistant ambush protected vehicle). Hold security.
- [Juno]: Actual, this is Bravo. Be advised we have good eyes on and A-T locked on target.
- [R1]: Solid copy Bravo.

Wow. These guys really do use a lot of the military jargon, e.g. "hold your position for three-zero" rather than thirty seconds. They give bearings, say "Roger" and "Stand by" a lot. This team does not engage with viewers on Twitch, like some streamers do. They seem really into the game and mission. No talk of non-game topics and no in-game chat that is not instructions/questions.

(Field notes, 11 June 2014)

This sort of exchange was common among milsim communities on Twitch. The radio was used heavily to communicate between teams and their commanders and this created a sense of group involvement and thus the game no longer felt

like a lone ranger adventure. Though they kept their conversations to a minimum, those they did have were markedly different from the limited responses of the enemy AI.

The gamers' radio use did more than address the lone ranger and Al capability gaps. It was my first glimpse into a world of role-playing practices that ultimately served to increase realism for the groups based on their models of what war was like. By contrasting their approaches to the game to my own and Bohemia Interactive's, I could identify which aspects of combat were deemed important enough to model and simulate. For example, their modification of radio communication indicated to me that it was an important aspect of combat, otherwise, why bother to include it?

This sort of 'act like a real soldier' behaviour was encouraged during my play through of the single player campaign. I was exposed to military jargon and radio commands early in the game and became familiarized with real world formations, tactics and Rules of Engagement (RoE). However, these behaviours were very basic and barely scratched the surface of real world military protocol and tactics. Through role-playing, however, gamers were able to add new layers of real world behaviours to the game, including increasingly complex rank and command hierarchies, radio jargon, and combat tactics, techniques and procedures.

These extra layers were drawn from the milsim community's collective knowledge of how real world militaries acted, a knowledge base that positioned these gamers as experts on the subject who were able to construct their own

narratives surrounding military experiences. This knowledge was derived through a series of interlocutors within and beyond the milsim community. Knowledge was gleaned from military field manuals available online, former soldiers, journalists and military strategy scholars. These knowledge sources carried with them a sense of authority and were used to the legitimize the models the gamers constructed (Holmes and Marcus 2005a:246).

When I began to look at role-playing practices beyond radio use a spectrum of groups emerged with hard-core simulators on one end and the casual just for fun gamers on the other. Where a group was located on the spectrum was directly related to the expert knowledge collected and modeled, as well as how they decided to enact the model. This meant that one group might be keen to institute a military command structure with an out-of-game hierarchy, while another might choose to have a more egalitarian out-of-game system. Both could have had similar realistic models of a military command system, but chose to enact them differently in their simulation processes. Alternatively, the latter group may have constructed a model that did not include extensive data on military ranks, which in turn produced a milsim unit devoid of an out-of-game rank system.

This spectrum was succinctly summed up by dslyecxi, a high-profile member of the *ArmA* 3 community, in an interview with other members of the community:

We have our own thoughts on "how it's meant to be played", but recognize that everyone is entitled to interpret the game however they want, and we're not arrogant enough to think that our way is "the only right way". We're certainly proud of what we've accomplished, though, and are happy

to share thoughts on what has worked for us, what hasn't, etc., in order to help others avoid mistakes that we've learned from in the past.

The great thing about the ArmA community is that it offers something for pretty much everyone – from hardcore milsim groups to totally casual experiences, as well as everything in between. We occupy what we would call the "serious fun" side of that scale – we're not stuffy or rigid in how we play, we know that it's all a game at the end of the day, and we're all in it to have a good time.³⁵

This assessment of the community was similar to my own. Some groups I observed had a casual "this is just a game" mentality to them and their role-playing behaviours out of the game reflected this. In their TeamSpeak conversations before and after missions they displayed a sense of egalitarianism and had shed the hierarchical ordering of their in-game roles. A sergeant in-game was just another gamer during the briefings and after action reports and certainly when just chatting with others. In these games the stakes were low, it was casual fun with friends. If a member strayed from the model, it was not a major transgression and they did not receive the title of spoil-sport. In fact, these casual gamers often articulated within their group mandates that they were alright with the gaps between their gaming styles and the real world. They did not see the need to negotiate gaps through role-playing.

Juno, a member of the Unit, mentioned that he also played with a variety of groups, including the casual role-players, in order to stream on Twitch more frequently. I had caught one of these streams and was shocked when his avatar was allowed to respawn into the game after dying. He explained that with this

³⁵ dslyecxi, "Charlie Foxtrot Interview," accessed May 26, 2015, http://dslyecxi.com/charlie-foxtrot-interview/.

group if he died, there would be a helicopter waiting at the respawn point ready to take him back to the firefight as a supposedly new member. While he noted that he did not care for the avatar revive or second-wave options of the casual role-players, it had to do with the preference of the group. "Yeah, I guess it's just the way that you operate. I mean, if everyone in your unit is OK with it, then yeah, you should totally do it." It was clear that what mattered was that all the gamers were working with the same simulation process in mind. For Juno, however, he had adopted the Unit's perspective on simulation, which had a no respawn rule. His identification of the spoil-sport pointed to a set of "cultural boundaries," which indicated time spent with a different milsim group that possessed different models (Heath 1997:70). As a result, when he played with other groups the emergence of gaps became unavoidable. He explained that the respawn "kind of kills the immersion for me as well." The simulation process of the casual gamers was a spoil-sport for him, but one he was willing to deal with.

Other groups who fell closer to the hard-core end of the spectrum, like the Unit, used role-playing to address this respawn gap. For these groups, soldiers killed in action remained out of the mission until the following operation. This fostered a sense of value for a gamer's virtual life, as once that avatar died, so did the role the gamer was playing. This meant that gamers paid attention to their simulation practices in order to stay alive. The "run and gun" style was not an effective tactic in real life and in deep milsim play it could result in not being able to play for another week. The lack of respawn raised the stakes of the game, which in turn "deepened" the play (Geertz 2000a).

Role-playing also took place at the beginning and end of each mission in briefings and after action reports; the depth of role-playing was once again determined by where the group was located on the spectrum. When watching the Unit's streams, they never began without a detailed, in-depth mission briefing. This was meant to tell the group what their objective was and how they would achieve it and they did so using the five paragraph order, a style of organizing information about a military scenario used by the US military (Smith 1988). While adherence to this structure appeared limiting, it actually fostered a sense of realism by emulating the rigidness of real militaries. The realism was aided visually when the briefings took place in-game, with the lead officer standing in front of all the other avatars. Other groups I observed used a more casual format that simply stated where they were going, who they expected to engage and what they wanted to accomplish. Once again, the attention to forming and enacting a model of real world protocols and structures through role-playing determined the depth of play.



Figure 6: In-game briefing. Note the use of in-game PowerPoint presentations (*source: http://tf187.net/Forums/ http://imgur.com/a/V2cO4*).

After action reports also varied in their rigidness depending on the group. Some simply took turns letting each member discuss what they thought went well or what they could improve on, while others wrote official reports for their websites outlining the mission's situation, events and results. These group meetings allowed gamers to role-play outside the *ArmA 3* landscape, to extend their experience of being a soldier. This extension of role-playing was one of the most contentious acts of modeling I experienced throughout my time in the milsim community and illustrated the greatest variation in role-playing behaviour. One of the Unit members I interviewed explained his group's stance on extended role-playing:

And you know, like, there's merit to modeling yourself after a military organization, which is something that you know we do too - we have staff departments. We separate our in-game and out-game leadership in the sense that we have non-commissioned officers who like would lead an

element in the game so once we go into an operation they would be a fire team leader or a squad leader. And then we have our out-game organization, which is modeled after a battalion staff and so there is merit to modeling yourself to a military like structure because obviously it works for the military so why shouldn't it work for us?

(Utah, interview, 20 September 2014)

The guys from the Unit told me to check out some other guys on the hard-core end of the spectrum. They gave me some specific recommendations and told me to check out ArmA Clans. Apparently their understanding of how to model militaries is fairly different than the Unit's. I kind of got the impression that these guys took their role-playing deeper by extending the role-playing outside of the game (in TeamSpeak and in their meetings – what kind of meetings do you have in a video-games??) more and really try to replicate the leadership, hierarchies and organizational structure of military groups.

(Field notes 22 September 2014)

Other groups, as the Unit members noted, took role-playing out-of-game very seriously. It appeared that there were times when modeling helped address gaps in the game, while producing or highlighting other gaps at the same time. I became curious as to what their so-called hard-core practices actually looked like and I took the recommendation to observe these other groups.

The website armaclans (<u>www.armaclans.com</u>) was an informal database of hundreds of *ArmA 3* groups from around the world that outlines what sort of practices each group values. I was able to find a number of groups that practiced this extended role-playing, a number of which explicitly outlined their practices on their websites, blogs and in-game. For those involved in this type of play, adherence to the group's models created depth and legitimacy in their gaming

practices. Take for example one group's explanation of military courtesies in gamer to gamer interactions:

Military courtesy shows respect and reflects self-discipline. Consistent and proper military courtesy is an indicator of unit discipline, as well. Soldiers demonstrate courtesy in the way we address officers or NCOs of superior rank... You do it by saying either the full rank or an abbreviation if there's an accepted one. For all of the commissioned officers, 2nd Lieutenant and above, you need to add "Sir". You can also address the Cos (but not the Generals!) as just "Sir" ... Even if you are buddy-buddy with CPL. Danny who's your SL, you will use his rank to address him... Spirit of the Rule: We follow the US Army traditions of military courtesies to respect the rank, effort, devotion and time sacrificed to the unit and as such you must offer this courtesy.

A selection of another group's rules and regulations read,

When an officer enters the channel this must be recognized. Calling attention is accomplished by a member of the Army or Air Force branch calling out "Atten—tion" while a member of the Navy or Marine branch would instead call out "Attention on Deck!" ... When a soldier of any rank joins or gets moved into another channel in TeamSpeak, they must report in. Reporting in is accomplished by the soldier stating their rank and name followed by "reporting in." For example, soldier Major Payne would report in by stating: "Major Payne, reporting in!" ... While gaming, soldiers should acknowledge orders they have been given with "Roger", "Copy", "Yes, sir", or "Yes, [rank of officer giving the order]."

Failing to uphold the model during simulation practices resulted in disciplinary action and loss of status for the individual. As one of the Unit members indicated to me, these sorts of role-playing behaviours were considered when rank promotions were awarded. As a result, the stakes were high for gamers in these units. Stakes were also high for the groups who played this way, as accurate, complete and all-encompassing models and simulations were key for these groups in order to produce realistic combat experiences with depth. Extended

role-playing required everyone to operate under the same model and carry out the same simulation process, or the circle would be broken and the spoil-sport removed.

In the community, this hard-core extended role-playing was typically understood as either 1) a necessary part of modeling, simulation and realism, as explained by the groups who practiced it, or 2) unnecessary and at times disrespectful.

So somewhere along the course of playing with a group that required paperwork and referring to people by their fictional rank, I realized the absurdity. There was also a preposterous and disrespectful awards system in place that was maintained under an air of seriousness and realism. Every member had a virtual uniform that would be maintained by a department. Based on the reports from game sessions and recommendations by NCOs and Officers in the group, players would have medals and awards added to their virtual uniform. I took offense at these being based on real medals--my granduncle had to burn in his tank back in the Old Country to get a purple heart, a player having a bad kill/death ratio in a game isn't the same.

(Neptune, personal communication, 20 September 2014)

Here it was made explicitly clear that role-playing did not address the gaps between real world and virtual experiences for everyone and that a complete enactment of an accurate model did not mean an authentic experience. Rather, these simulation practices appeared to highlight these gaps and even enlarge them. During one of their missions, a Unit member declared, "This is not real life. This is *ArmA 3*. So we have to do things differently." For some, constantly referring back to real life was a reminder that *ArmA 3* was *not* real life and that in order to have deep play they needed to do things differently, more organically.

Thus, while role-playing helped to compensate for the gaps between the real and virtual worlds by allowing gamers to negotiate the gaps they did have some control over, it actually produced a new level of gaps between gamers and groups.

However, there was the potential to address gaps at the individual level through the incorporation of real world tactics, techniques and procedures in group training sessions. In the following sections I explore the idea of a field manual as the group model and training as a way to confer appropriate simulation practices and choices to new recruits.

Reconciliation through role-playing tactic, techniques and procedures

Tactics, techniques and procedures, or TTPs, was a phrase I often heard thrown about in mission briefings and after action reports. It was not until I had an interview with a gamer in charge of his group's training that I got a full explanation of what their TTPs were and how they were collected, curated and used to construct models suited for *ArmA* 3 simulations.

[AC]: Would you be able to expand on the TTPs?

[Utah]: Uhm, yeah sure. Tactics, techniques and procedures are uhm – I can give you a good example. We actually have our own field manual that I wrote and it's still [laughs] a work in progress, but it's basically a – what it lets you do is...

[Ping! Utah TeamSpeak text message: < link to the field manual>]

...let me find you a really good quote that can explain it better than I can in my own words...

Okay, so what the United States army has to say about its tactics, techniques and procedures is "one of the defining characteristics of war is

chaos. The tactics, techniques and procedures are a counterweight to this chaos. From the moment combat begins plans often become obsolete, communications fail, soldiers become casualties and units fragment. Military tactics are the practical means militaries use to achieve battlefield objectives." uhm, and then it goes on to expand, "TTPs are those generally accepted practices used to conduct operations. Generally accepted means that the doctrine described is applicable to most operations most of the time and that there is widespread consensus about their value and usefulness." So what they are really is they're standing operating procedures which kind of make it so that say if you're part of one platoon and you get transferred to another platoon that the things that you have been taught still apply and so that everyone is on the same page with how they should conduct certain things, how they should behave themselves. For instance, a very practical example is how to take out a machine gunnist. The TTPs learn us how to do this and so it doesn't matter what infantry you're in, everyone is on the same page with how to do certain things. So the TTPs are those things that apply across the whole military, pretty much.

[AC]: That is so interesting. So where have you gotten all this information from?

[Utah]: I'm a civilian. So there's not a whole lot of, uhm, I mean, I'm not in the military myself [sic] so there's not a whole lot of real life stuff that I can reference myself, but if you just look hard enough like the internet has everything. So if you just look hard enough you're going to find certain things. I can actually send you a website really quick. It's the website, from the army itself actually,

[Ping! Utah TeamSpeak text message: http://armypubs.army.mil/doctrine/ATP_1.html]

it's armypubs[dot]army[dot]mil and basically they have a bunch of doctrinal publications in there and they also have a – I'll send you the next link

[*Ping!* Utah TeamSpeak text message: <armypubs.army.mil/doctrine/ATP_1.html>]

 those are the army tactics, techniques and procedures or "ATP". That's an entire list of PDF documents that basically describe these tactics, techniques and procedures for different units and different types of units and uh, elements. So it's uh mostly done, like when I set all this stuff up I just looked on the internet and I just googled it. I've been doing this for two years so after a while you start to know where to look and how to look at it and that kind of stuff.

(Utah, interview, 20 September 2014, emphasis added)

The Unit did not rely solely on the government documents Utah had collected and curated, but instead incorporated other pieces of data into their modeling practices, including first hand experiences, academic studies and the media.

I had fun, it was a good mission... The only thing that I didn't like, well it's not that I didn't like it, but it could be better is 1) we were going to slow. Uhm, now that's just the difference between Army and Marine Corps. If you guys don't know already I was in the Marine Corps for four years one combat tour...

(Rupert, After Action Report, 25 June 2014, emphasis added)

I love having a ton of assets to create a unique scenario, especially when *my studies* give me an idea to recreate something or make something new

(Neptune, personal communication, 1 October 2014, emphasis added)

The Unit's practice of collecting, curating and conferring *ArmA 3* relevant TTPs positioned them as para-ethnographers, experts within a network of collaborators who fashioned their own cultural narratives about military experiences (Holmes and Marcus 2008:596). This network allowed those gamers who were a part of the culture, regardless of their profession or real world experience, to theorize what war was really like (Martin, et al. 1997). This in turn allowed for a diversity of knowledge and ideas to coalesce during the modeling processes.

Drawing on released military field manuals, news reports, documentaries, anecdotes and military strategy literature, these gamers produced a shared model of complex and at times messy social realities. These models were made flexible and adaptable, due to the changing nature of real world warfare and the *ArmA 3* franchise. This constant change, as well as the gap between the real and virtual media, allowed for a reflective distance in which gamers could engage in criticism and re-organization (Islam 2014:240). Rather than derailing milsim practices, the acknowledgement of gaps actually allowed for the production of models that "fit" the realities of *ArmA 3*, where official (hard-core milsim) narratives – those that omitted gaps – fostered models incapable of dealing with contradiction and exception, not unlike Schneider's classic anthropologists. Again I was reminded that "this isn't war, this is *ArmA 3*; we have to do things differently."

Through these models the Unit was able to address gamer-to-gamer knowledge gaps and progress as a cohesive unit into their simulation processes. As one member noted on their blog, "There's always been a huge variation on knowledge in this group. Some guys live and breathe field manuals. Others, like me, focus on doctrine and method. Some guys are sticklers for a perfectly executed battle drill down to rifleman placement. This concept places a *huge* emphasis on having well learned and practiced players in the group."

The use of standard TTPs, derived from real world militaries and codified in their field manual, would not only give legitimacy and authenticity to their milsim operations, it would streamline their gaming and address skill gaps. By

incorporating their models into training drills, they were able to produce a learned and practiced group of players capable of operating under the same model and carrying out the same simulations. As Omaha succinctly explained it, they used the TTPs, the terminology and shared model so that "when you get in game, they give you something, they tell you something, they give you an order, you know what they're talking about. You're not completely lost." This model guided their simulation processes.

Field manual as model

Before the group's model could be put into practice in the training session, and later the missions, it was documented and presented to the group in the form of a field manual. This field manual described the various roles in the group a member could take on, as well as the expected behaviours, actions and responsibilities of each role. It also outlined the official radio and soldier-to-soldier communication patterns, marking certain forms of language as appropriate and others as taboo. Together, these sets of behaviours – modeled after real world military positions and protocols – formed the overall in-game rules for role-playing and simulation as used by the Unit. These rules differed from those used by other groups and were therefore reflective of the models and data that the individual gamers brought to the Unit.

TTPs were a central aspect of role-playing behaviours in that they outlined the very roles certain individuals were to embody. In a serious role-playing group, such as the Unit, it was no longer enough that the avatars looked and acted like soldiers, rather, it was expected that they look and act like *specific* soldiers. The

emphasis on specified roles allowed for the formation of a group that reflected the makeup of a real world military unit; this is what I refer to as serious 'unit' role-playing.

The Unit used an in-game command hierarchy based on real world models as a means of controlling the chaos of ArmA 3 warfare; as a result, those who occupied the upper ranks of the hierarchy were also expected to take on a certain set of role-playing behaviours. According to their field manual, at the top of the hierarchy was the Company Commander (CC), who "leads by personal example and is responsible for everything the company does or fails to do." The Executive Officer (XO), second in command, was assigned the role of assisting the commander in mission planning and accomplishment. Half a page was dedicated to the many specific responsibilities assigned to the CC and XO. These two roles, within the Unit, were responsible for producing the model the Unit would be using. The First Sergeant (1SG) was defined as "the senior noncommissioned officer (NC) and normally the most experienced Soldier in the company." This position was frequently associated with supervising routine operations, including planning and coordinating training and operations. As such, this role was often responsible for the distribution of the model to Unit members.

The Unit also produced models of their social relations, much like the classic anthropologists did, in which they illustrated the hierarchy of connections between individuals, roles and subgroups. Using military map symbols, easily found in declassified military documents, they visually modeled their group's structure.

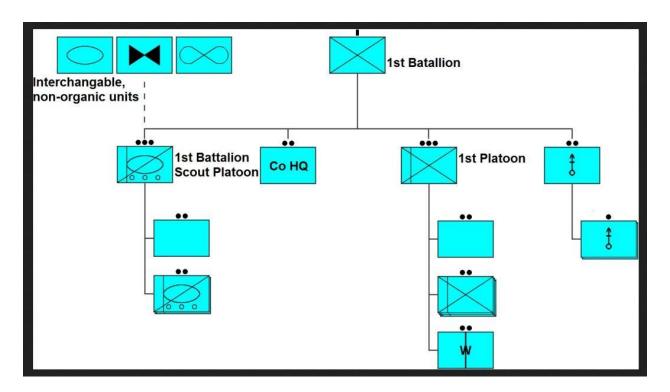


Figure 7: The Unit's model of command structure, provided to author by Utah.

With this visual model, members would understand the roles assigned to them based on which section or squad they were a part of. This necessitated the creation of models for each individual role, which were codified in the field manual. For example, someone assigned to the Infantry platoon (represented by the oval) would be assigned a role as a member of a Fire Team, the "fighting element within the Infantry platoon." They would play a Rifleman, Grenadier, Automatic Rifleman or Team Leader, the responsibilities and behaviours of which were outlined in detail in the field manual. For example, the Rifleman was modeled as follows:

The Rifleman

The rifleman provides the baseline standard for all Infantrymen and is an integral part of the fire team. He must be an expert in handling and employing his weapon. Placing well-aimed, effective fire on the enemy is his primary capability. Additionally, the rifleman must --

- Be an expert on his weapon system--his rifle, its optics, and its laser aiming device. He must be effective with his weapon system day or night. He must be capable of engaging all targets with well-aimed shots.
- Be able to employ all weapons of the squad, as well as common munitions.
- Be able to construct and occupy a hasty firing position and know how to fire from it. He must know how to quickly occupy covered and concealed positions in all environments and what protection they will provide for him from direct fire weapons. He must be competent in the performance of these tasks while using night vision devices.
- Be able to fight as part of his unit, which includes being proficient in his individual tasks and drills, being able to fight alongside any member of the unit, and knowing the duties of his teammates and be prepared to fill in with their weapons if needed.
- Be able to contribute as a member of special teams to include wire/mine breach teams, EPW search, aid/litter, and demolitions.
- Be able to inform his team leader of everything he hears and sees when in a tactical situation.
- Be able to perform Soldier-level first-aid.
- Be able to administer buddy aid as required.
- Be able to manage ammunition and equipment during operations.
- Be prepared to assume the duties of the automatic rifleman and team leader.
- Understand the mission two levels up (squad and platoon.)

This model clearly outlined the gamer's role and behaviours for in-game simulation practices. The model also controlled communication practices available to the gamer. While nothing inhibited the gamer from talking to fellow soldiers within earshot – or through private out-of-game communication channels – the radio was a different matter. Based once again on a military model, the role occupied by a gamer dictated when, how and if radios could be used without being a spoil-sport. First, the field manual defined frequency and access. As one can see from the Table 5.1 below, a rifleman would only have access to one of the three radios.

Table 3. Radio access

	Who	When	Transmission Range	Frequency Range (Mhz)
AN/PRC- 343	Squad members.	For communications within squads.	0 - 500 m	2401 - 2416
AN/PRC- 148 (VHF/UHF)	Squad leaders, platoon leader and RTO.	For communications between squad leaders and the platoon leader.	0 - 8 km	30 - 511.999
AN/PRC- 119	Platoon lead (RTO), company command and additional company assets.	For company-wide communications and communications with company assets.	0 - 400 m (low) 400 - 5 km (medium) 5 - 10 km (high) 10 - 40 km (PA)	30 - 87.975

Source: The Unit's field manual, *emphasis added*. *Note*: the table has been adapted for formatting.

Once a gamer had access to a line of communication, the pattern of communication, including word choice and sentence structure, was highly regulated. The model the gamer was to adhere to in the simulation process was explicitly outlined in the field manual as the following:

Radio Voice Procedure

It is important to note the following:

- Listen before making a call.
- Speak slowly and clearly.
- Make your calls brief, others may want to use the same channel.
- Always start with call-signs theirs first, then yours.

- Always end a transmission with over or out (never both, that does not make sense.) This tells the other station that you have finished speaking and it is their turn.
- Never interrupt another conversation. Wait until the air is clear!

Example Two-Way Radio Call

Unlike the telephone which is normally point-to-point (only two people on the call), radio communications can have many stations sharing the same frequency, so it is very important to always identify who you are and who you are trying to talk to every time you transmit. This is why we always give the call sign of the station you are sending to and then your own call sign at the start of every message.

The following dialogue exchange was used to illustrate this protocol:

In the following example [Table 5.2] we have two stations, call-sign ECCLES (a scout leader at the hall) and DINGO (a scout patrol out on activity.) ECCLES wants to find out where DINGO patrol is, and then tell them to come back to the hall:

Table 4. Dialogue example

	Message	Meaning
[E]:	listens	ECCLES listens to ensure there isn't another conversation underway.
[E]:	DINGO, this is ECCLES, over	DINGO, this is ECCLES calling. I want to talk to you.
[D]:	ECCLES, this is DINGO, over.	Okay, I hear you, go ahead
[E]:	DINGO, ECCLES. Say your location, over.	
[D]:	ECCLES, DINGO. We are at the end of the school oval, map reference MIKE, FOWER. Over.	We are atDINGO uses the Phonetic Alphabet to give their map reference, much clearer than trying to say 'M4'

Table 3. Dialogue example continued

Message... Meaning... [E]: Sorry, I didn't hear you last time; please DINGO, ECLESS, say again, over. repeat your last message. [D]: ECLESS, DINGO. I say again. We Okay, I'll repeat my last message... are at the end of the school oval, map reference MIKE, FOWER. Over. [E]: DINGO, ECCLES, roger. Return to Okay, thanks, I understood you that time, scout hall, over. now please come to the hall. ECLESS, DINGO. Wilco. Okay, we understand and we will comply [D]: with your request. Cool. This conversation is finished. [E]: DINGO, ECCLES. Out.

Source: the Unit's field manual

Note: table has been adapted for formatting

The combination of role-specific behaviours and communication produced individual models that were folded into the larger Unit model. This practice brought the gamers one step closer to embodying the soldier and experiencing combat, while their reflexive nature acknowledged the inevitable gaps between their models and reality. This allowed for accurate, complete and authentic models that, while they may not have perfectly fit with reality, successfully simulated the complex messiness of social relations in a meaningful way.

Deploying models through group role-playing on Training Day

Once the models were constructed and curated in the form of the field manual, it became necessary to relate the models onto the unit members, especially the new recruits. This would ensure that every member was employing the same

model during the simulation process and that gaps between gamers would be minimized if not eliminated. In this section I explore the deployment of the TTP-based model through Training Day, as well as how Training Day can be considered a modeling and simulation, or role-playing, practice in its own right.

The Unit begins the training session in ArmA 3, with the group of 6 or 7 guys lined up in front of their instructor, Utah. I am amazed at the degree of roleplaying here, they literally line up as if they were real soldiers listening to their commanding officer. For the most part they stay in one place – not at attention like the [er-pg7] would demand – and refrain from running around chaotically... for the most part.

I begin observing them after Omaha launches the stream on Twitch and therefore missed the first couple minutes of their conversation. I enter into the stream with Utah discussing the day's battle drills (see Figure 9), one of which is on what to do when you take contact. Apparently the first few drills will be run dry, and then they'll introduce AI.

(Field notes September 17, 2014)



Figure 8: Screenshot of the Unit listening to Utah in the encampment, from Omaha's perspective.

Training Day consisted of a two-hour observation session on Twitch and TeamSpeak. At 15:00 MST one afternoon I logged onto TeamSpeak for the first time to observe the Unit's Wednesday mission and interact with the gamers. However, due to a low turnout, Utah elected to turn the Operation Day into a training session. Omaha, one of the streamers I interviewed as part of this study agreed to stream the session for me, so I could watch their drills and communicate with them through TeamSpeak.

It became clear early on that this session was not only an opportunity for Utah to provide his model of what war was really like to other members, it was a chance to role-play, to model and simulate what training drills were really like as well. While this role-playing existed outside of the missions, I contend that the Unit does not yet fall into the category of an extended role-playing group as Training Day still existed within the *ArmA 3* landscape.

[Utah]: So, we get shot at, duck for cover, return fire, make sure that we're next to each other, try to gain fire superiority, then try to lower that fire rate so that we can sustain it for a longer period – which is done by the fire team leader issuing the fire commands – then team leaders make sure they report the location or everyone reports the location of the enemy contact. Then after that we can think about actually potentially flanking the enemy.

Okay, one last question before we start off, are you guys aware of the fire commands [those found in the field manual] I mean the real standard fire team commands?

[Omaha pulls up on screen the Unit's lesson plan for the day, "BATTLE DRILL 2: REACT TO CONTACT (FT/SQ/PLT)" to look at a visual representation of Utah's explanation]

No? Okay. The fire command is really easy. It's an alert, something like "Team! Prepare fire." Followed by a direction, "Northeast," followed by a

description of the target, "Infantry," followed by a range "200 meters," followed by the method of fire, this includes the manipulation and rate of fire. The manipulation is something like area of fire, point fire, suppressive fire, indirect fire, that kind of shit.

Throughout the session Utah referred back to the Unit's field manual and to real life, as means of explaining the drills, but also as a means of bridging the gaps between the virtual and the real. Through using proper fire team commands not only would their missions run smoother, but they improved realism by using accurate jargon as simulations. In addition to jargon, proper actions were modeled and enacted as a means of effectively and authentically engaging the enemy Al. These simulations were accurate right down to the number of rounds fired per minute and were another example of Utah's para-ethnographic practices.

[Utah]: And for the ARs and the Machine Gunners, Foxtrot, do you know what the rates are for the Machine Gunner?

[Foxtrot]: Sustained, Rapid and Cyclic.

[Utah]: Mhm. Again, with sustained being a very slow rate of fire. Rapid being 6-9 rounds every 3-5 seconds, and cyclic just being continuous fire.

Again for the rifleman, sustained 12-15 rounds per minute [4-6 rounds every 8-10 seconds]; semi-automatic 45 rounds per minute, so that's 4-6 rounds every 4-5 seconds; and burst fire is 90 rounds per minute with bursts of 4-6 rounds ever 2-3 seconds. So you can see that the size of the burst remains the same, but the interval becomes half.

After being quizzed on protocol and jargon, Utah was satisfied that the trainees could put their models into practice. He divided the group up into two fire teams, one lead by Oscar and the other by Omaha, who had previous training as a fire team leader. The groups moved through the landscape, and were instructed to pay close attention to how they walked.

[Utah]: Okay, so we're going to be moving in a wedge formation, with two fire squad wedges. So Omaha, go ahead and take your team and go. Lima, you're going to be the point man as a machine gunner, which is not unheard of. Oscar, expand out to his left and Echo fan out to his right. And I'll be behind. And Omaha, go ahead and set your guys in a wedge... Alright, Omaha your call sign is Bravo, Oscar yours is Alpha.

[Omaha (to his fire team)]: Alright Bravo, prep to move!



Figure 9: Screenshot of group moving out of encampment in formation. Omaha's perspective.

The group continued to move out of the encampment at a walking pace towards the area Utah had set up for their drill. This initial drill was a dry run, without live fire from enemy AI, a technique common in real world military drills, according to my participants.

[Utah]: Alpha, you're taking contact!

[Gun shots begin]
[Omaha]: Contact!
Contact!
Contact right!

[Omaha]: Move right, move right, Bravo!

Contact!

Contact right!

[Omaha (*radio*)]: Alpha, this is Bravo, we're moving right side --- Contact! --- flanking into the right side of the contact report over.

Contact!

[Utah]: All call signs halt. [Gun shots subside]

After this initial dry run, the drill was repeated twice more. However, Utah was unimpressed with his trainees' knowledge of the fire commands and rates of fire. As there were substantial gamer-to-gamer gaps in this regard, he altered his training plan to focus on the specifics of the TTPs, found in the field manual.

[Utah]: I'm going to issue several fire commands to you guys – and I will issue them independently for the ARs and the Riflemen. And I'll call them out for you so you can all fucking learn.

Okay, prepare fire. One-four-zero degrees. The armed truck. 150 meters, suppressive fire, cyclic and burst.

[Gun shots begin, chaotic sounding]

[Omaha]: one-four-zero!

Mag!

[Utah]: Suppressive!

Mag!

AR reloading!

[Utah]: Cyclic!

Mag!

[Utah]: Burst!

AR reloading!

Mag!

[Utah]: Check fire.

[Omaha]: Check fire.

Check fire.

Check fire.

Check fire.

[Utah]: Okay the difference between check fire and cease fire is where with cease fire you completely stop firing and forget about that target, with check fire you stop firing but you still remember that target and the fire orders. So, if I say resume fire you guys all do the same fucking thing again. Same target. Same rate of fire.

The Unit resumed fire for a period of time, yelling that they were reloading almost constantly. They went through check fire and cease fire drills, to ensure that the teams were familiar with those orders as well. It was of the utmost importance to Utah that the gamers understand the models that they would be using on Saturday in their missions, as this allowed for greater immersion and realism, as well as a more effective gameplay style.

[Utah]: Good stuff, that's good. I want you to keep saying those commands over – that's fucking great. [*Group resupplies*]. Get your shit and get back in line.

Training day was an opportunity for the Unit to ensure that everyone was operating with the same model in mind and to correct the gamer-to-gamer gaps as they emerged during the drills, such as when a fire team leader forgot some of the fire commands.

It would be possible for the Unit to accomplish its goals without having someone give the fire commands. If each member of the team knew when and how to use the different rates of fire, embodying the role of fire team leader would be irrelevant from a utilitarian perspective. However, the inclusion of gamers who role-played as fire team leaders added to the completeness of the unit model. Hearing the fire commands and contact reports also added to the accuracy of their model of combat. As noted in the chapter 5 on modding, one aspect of a realistic combat model is sound. Whereas mods frequently focused on improving the game's sounds to more accurately and completely reflect a real world combat scenario (e.g. proper sounding gun shots, ambient noise and three-dimensional

audio modeling), role-playing practices focused on how the gamer's play could add to that model. It was not enough that the environment sounded accurate, there had to be an appropriate human element to the combat as well, achievable only through role-playing.

Training Day was not just an opportunity to distribute and reify the Unit's model and prepare for role-playing in the next operation, rather, it was another chance to role-play in and of itself. This was particularly obvious when listening to and watching Utah guide his trainees through the drills. Utah, head of the training department, clearly took on the role of battle drill instructor. He had a nononsense attitude and demanded that the other members remain focused and take the drills seriously. His degree of serious role-playing in many ways created a temporary structure in which the other members were encouraged, or at times coerced, into role-playing as well. This was reminiscent of every military-genre movie I had seen in which there was a serious, intense drill sergeant determined to train his recruits.

My assessment of Utah's role-playing abilities was, of course, based on my own personal model of the military; a model shaped by movies, documentaries and my own imagination. Other members indicated gaps within the training sessions, gaps that were frequently due to the Unit's models. These gaps emerged when members of the Unit were also active or former soldiers and their first-hand knowledge conflicted with the existing model. One member, Kilo, attempted to introduce aspects of real world training from his own experience into the Unit's model. One of these training sessions involved 'rock drills,' which Juno

and Omaha explained consisted of out-of-game map reading, but also a degree of role-playing.

[Omaha]: Yeah, so he uploaded five scenarios and we worked through how we would approach that objective. Like, what's the most efficient way to do it? And these kind of trainings -- even though you're not in-game, you're just on a map – it helps train how you think. You know, the better you are at doing these sorts of puzzles, the better you do in-game. When you're in that real-time scenario, you know what to consider. Like, I have to look for elevation, I have to look for danger zones [Juno: rocks, cover]. Yeah, I have to look for place we can pull back in case it goes bad. And the pictures and scenarios that Kilo posted give you the chance to play around [Juno: without having to consider that your fire team is going to die]. In a way you're kind of like role-playing, if you want to think about it that way.

[*Ping!* Omaha TeamSpeak text message: <<u>link to Kilo's scenario</u> uploads>]

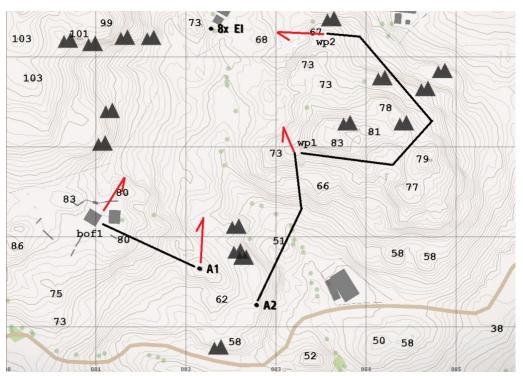


Figure 10: Kilo's scenario maps, provided to author by Omaha.

This enabled Kilo to bridge some of the gaps between his model and civilian members of the Unit. As Kilo actually had real world experience with combat, his

model of the complex messiness of war was arguably closer to empirical reality than many of the other members of the Unit. This knowledge sharing, which would ultimately manifest as role-playing practices in-game, helped to negotiate gamer-to-gamer gaps, as well as some real-to-virtual gaps identified by Kilo. By sharing this modeling data, it was his hope that their simulations more accurately, completely and authentically reflect his real world experiences.

Discussion: ravines that remain

The use of role-playing by the milsim community was fascinating in its attempts to negotiate gaps in *ArmA* 3. In many instances these practices compensated for the inevitable gaps between virtual and real by fostering a sense of immersion so great that gamers were momentarily able to transcend the gaps. By focusing on role-playing in the mission briefings, gamers were able to increase their sense of realism, which compensated for those gaps that were not mitigatable. However, due to gaps in models (e.g. using American vs. European data), discrepancies between gamers and groups arose. These gamer-to-gamer level gaps were exacerbated during the simulation process when certain groups elected to enact certain aspects of their models but not others. As a result, two groups could use the same model - even the same field manual - but have two different milsim experiences, based on their simulation practices (e.g. extended role-players vs. the Unit's role-playing).

It has become clear that while role-playing addressed many of the gaps I experienced during the single-player campaign, it was also responsible for the production of many other gaps along the way. However, these gaps in turn have

reiterated the complex messiness of the *ArmA* 3 community and the difficulty of producing a model that fits it.

Chapter 6: Some muddles in the modding, or, how gamers really game

"Even though in the real world, right now, we have intelligent scopes, glasses with NV and Thermal, lasers, active armour, rail-guns, exo-skeletons and some pretty crazy drones in the works. But all anybody wanted was fucking AKs and AR-15sv"

Redditor

An introduction to gaps in modding

In this chapter I focus on the use of game modifications by members of the *ArmA* 3 milsim subculture. These practices, like the role-playing discussed in chapter 5, incorporate real world models as a way of simulating a real world combat experience. However, before embarking on a discussion of the modification practices used by the milsim community, it is perhaps useful to provide the reader with an overview of history and diversity of mods themselves.

Game modification, or 'modding,' is the practice of manipulating, altering or adding to the basic structure of a game in order to create the desired gameplay experience. Through these practices packages of code, or 'mods,' are created and distributed throughout the gaming community. Modders – those gamers who actually create the mods, rather than simply used them – are found throughout the gaming world and are by no means limited to *ArmA 3* (see Kow and Nardi 2010). As a result, the types of mods created, as well as the reasons for their incorporation into gameplay, are extremely diverse.

Olli Sotamaa (2010) identified a number of motivations and roles within the community for modders. In his study, some modders expressed that modding was an artistic endeavor and pursued it for the sake of creativity, while others saw it as a means of developing skills required for jobs in the video-games

industry. Within these practices, three basic types of modders emerged: mission makers, add-on makers and total conversion modders. Mission mods were created by rewriting existing combat operations using the in-game editor, forming new narratives and plotlines. Here, modders could draw on in-game fictional content as well as the real world for inspiration. Often in military-themed shooters, it is not the visuals or audio that provides the "thrill" of the game, as these are restricted by technological advances. Rather, the narratives and missions compensate for the real-virtual gaps, so long as they are close approximations of real world models, such as news broadcasts (Hoglund 2008).

Add-ons, however, involved the addition or modification of in-game objects, such as plants, weapons and vehicles. Often a number of these add-ons would be grouped together into theme-packs, such as *ArmA 3*'s "Avgani Iraq & Afghan Village" pack, which included new villages with authentic buildings and roads, as well as local vegetation. ³⁶ Finally, there were the total conversion mods, which involved the drastic reworking of a game's basic structure. For example, "Invasion 1944," a group modding project, reimagined *ArmA 3* as a World War II game, rather than a futuristic conflict that took place in 2035. ³⁷ Using the basic structure the modders altered the look of weapons, vehicles, soldiers and even environments to simulate a World War II battle experience.

While I do not disagree with Sotamaa's (2010) categorization of roles and motivations for modders, I found that modding was also used by the community I

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³⁶ Opteryx "Avgani Iraq & Afghan Village," on armaholic, accessed February 09, 2015 http://www.armaholic.com/page.php?id=3525.

³⁷ Opteryx "Avgani Iraq & Afghan Village," on armaholic, accessed February 09, 2015 http://www.armaholic.com/page.php?id=3525.

studied to address multi-level gaps that existed within the game. These gaps (Schneider 2011) emerged between the desired 'real world' combat experience and the available virtual one as pivotal aspects of a real world experience, such as touch, smell and bodily harm, could not be replicated online due to technological restrictions. A second level of gaps formed between what *could* be possible in a virtual world and what is provided by the game's maker, Bohemia Interactive. This was due to personnel and budget restraints that made including all the nuances of a real world combat experience, such as sound, graphics and environmental factors unattainable (Kow and Nardi 2010:38).

Through the use of mods, however, gamers were able to manipulate the basic the game to narrow or bridge some of these gaps for themselves. By implementing what I refer to as cosmetic mods, gamers redesigned parts of the game to simulate the visual and audio-based aspects of their desired real world experience, which in turn helped make the game 'feel' more real. Functional mods, also known as utility mods, were also used and served to restructure the game in ways that address game mechanics and 'bugs' that inhibited the experience. This allowed the game to progress in a way that was closer to a real world combat scenario. These mods also attempted to compensate for the absence of touch in the game.

In this chapter I explore how and why these two types of mods were used by analyzing a selection of cosmetic and functional mods, their content, purpose and reception by the community. I contend that while each mod played a role in bridging the gaps identified above, they also in turn produced a new level of gaps: gamer-created gaps. These gaps emerged when there was a discrepancy between the mod and reality and as such, the muddles in the modders' models must be given consideration here.

Cosmetic mods

Members of the community defined cosmetic mods as those that "alter the appearance of the game, but do not *necessarily* alter the way it is played... although they *could* alter it drastically" (Neptune, personal communication, emphasis added). Throughout my time studying these mods, this definition held true. Many cosmetic mods simply altered the appearance of in-game content, such as weapons and vegetation. However, these subtle changes in appearance often led to an overhaul of gameplay style, but stopped short of changing game mechanics and fixing glitches.

As with roleplaying, discussed in chapter 5, the cosmetic mods discussed here drew on real world models to increase immersion and realism within *ArmA* 3's virtual landscape. Here, however, they sought to close the gaps between virtual combat and real world combat by correcting those visual and auditory aspects of the game that were deemed unrealistic, or by adding extra layers of graphics and sounds that increased the experience's completeness. In this subsection I focus on the use of two types of cosmetic mods: identity and realism mods. This is not meant to be an exhaustive analysis of cosmetic mods and their types; rather, this selection of mods is meant to show the reasons and repercussions of using gamer-created content.

Identity mods

Identity mods, I contend, are those that add to (re)creation of a real world identities that manifest themselves in a number of ways. In their work on identity and avatars, Neustaedter and Fedorovskaya (2009) have identified a number of identity types that exist in online communities. They argue there are 'Realistics,' who seek a carbon copies of their real life identities, and 'Roleplayers,' who want to become someone else or experience a situation they normally could not (Neustaedter and Fedorovskaya 2009:5-6). These two types of identities at first appear mutually exclusive, however, I found when it came to modding, they often converged to create realistic role-playing hybrids.

I first stumbled across the idea of identity mods for myself while observing conversations on Reddit. A milsim gamer posted a screen shot of his unit titled "Swedish (virtual) soldiers in their natural habitat" that showed what looked like regular *ArmA 3* soldiers except for the tiny Swedish flags affixed to their uniforms. Here, the US and NATO soldiers in *ArmA 3* had been reimagined as specifically Swedish soldiers. The gamers had joined the Realistic identity, by using their real world nationality, with the Roleplayer identity, by engaging in combat situations they normally would not experience. Here, they used a model of what their military looks like to aid in their simulation processes and to address gaps between what Bohemia Interactive provided and their models of what war would be like.



Figure 11: "Swedish (virtual) soldiers in their natural habitat" (source: Calbark. http://imgur.com/gallery/fdXCwUj/new.

This emphasis on building a soldier that 'looks like me' is a common occurrence in milsim communities. In his work on the *Operation Flashpoint* franchise, which is arguably the beginning of the *ArmA* franchise, Sotamaa contends that though the game was international, modding practices often reflected local ideas. He notes that "several projects (SwissMod, Finnish Defence Forces) focus on constructing virtual representations of local environments and troops. Also projects focusing on particular historical events (Operation Gulf War Crisis; Battle over Hokkaido; 1982: Flashpoint in Falklands) often have national emphasis" (Sotamaa 2010:11). This is a legacy that I witnessed in the current instalment of the franchise, a decade later.

The practice of locating one's national identity through mods appeared throughout my fieldwork in various forms. In addition to national flags, authentic

camouflage patterns on uniforms were common and many modpacks included distinct and accurate patterns for their country's navy, air force and army fatigues. Even country specific rank patches were added to uniforms to foster a sense of identity and embodiment.



Figure 12: Soldier with custom German camouflage, flag and rank patches (source: O i.G. Tayylor [vDSK]. http://www.armaholic.com/datas/users/254oxz3cj4g_4.jpg).

Other modders took cosmetic identity modpacks a step further by introducing modpacks that customized everything from uniforms to vehicles in order to reflect their national models. One such modpack was created for Canadian gamers who wanted a combat experience modeled after their national forces. The "Canadian Armed Forces" mod, developed by the CAF Team, modeled the Canadian Army, Royal Canadian Airforce and Canadian Special Operation Forces. 38 According to their description, "The Canadian Armed Forces Modification for ARMA 3 aims to bring [t]he most *accurate* and *complete* portrayal of the Canadian Military into ARMA 3." This mod included customized fatigue camouflage patterns for each

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³⁸ CAF Team, "Canadian Armed Forces," on ArmaHolic, accessed February 10, 2015 http://www.armaholic.com/page.php?id=19420&highlight=CANADA. Emphasis added.

branch of the military, Canadian specific weapons mods, unit flags and authentic night vision goggles. It also redesigned tanks, patrol vehicles and helicopters to look exactly like those used currently.



Figure 13: CAF's mod of a CH-147F Chinook (*source:* http://www.armaholic.com/page.php?id=19420&highlight=CANADA)



Figure 14: CH-147F Chinook (*source: http://www.rcaf-arc.forces.gc.ca/en/aircraft-current/ch-147f.page*).

These cosmetic modding practices allowed for Realistic and Roleplaying identity construction, as they relied on real life Canadian models, but still allowed the gamers to experience simulated combat in ways they would normally be unable to do, unless they enlisted in the military. In addition to identity construction and capacity for increased simulation, I contend that the emphasis placed on accuracy and completeness in cosmetic identity mods illustrated one of the ways in which gamers were negotiating the gaps between virtual and real world experiences. These gaps manifested clearly when gamers were presented with avatars that did not match their real life identities or potential experiences. For example, some Canadian gamers found the use of NATO and US soldiers in their gameplay to be less realistic as their (potential) real world combat experiences

would involve deployment with the Canadian Armed Forces. The creation of the "Canadian Armed Forces" mod provided a way for gamers to negotiate narrative-level gaps that existed between what *could* exist in a virtual world and what was provided by Bohemia Interactive.

This desire to enact a model that reflected an individual's national identity was not limited to representations of Western militaries. It extended beyond national borders and encompassed those believed to be the enemies of the West. Given the precedent of using accurate real world models for the national identity mods, it is logical that the community attempted to do the same for the enemy identity mods. During my fieldwork, there were many conflicts involving Western militaries for the modders to draw from. Many of these were located in the Middle East and Afghanistan and were focused on the War on Terror. As a result enemy mods frequently included representations of ISIS, al-Qaeda and the Taliban. However, I became curious as to whose model of the enemy was being used in these mods, whether there was still an emphasis on being 'accurate' and 'complete.' I wanted to know what sort of gaps emerged because of these mods and how they differed from those found in the national identity mods. Drawing on Edward Said's (1979; 1985) Orientalism, the remainder of this section explores these gaps, as well as the muddles in modeling processes.

In his work, Said (1979) notes that the narrative of the West could not exist without the East and that the category of 'Us' could not exist without that of the 'Other.' This 'Other' was described as backwards, barbaric and violent – the supposed opposite of 'Us.' I contend that a similar phenomenon existed within

the identity modding practices and was in fact the latest manifestation of an Orientalist discourse. The national identity mods discussed above represented the category of 'Us,' based on the Western militaries, and consequently, a corresponding enemy identity was needed to give 'Us' meaning. A number of modders took up the challenge of replacing the CSAT enemies with an enemy identity mod that more closely reflected the real world Others (Hoglund 2008).

One of the most comprehensive modpacks I encountered during this project was the "Middle East Conflict mod" (MEC) wherein a number of real world factions were introduced to *ArmA* 3, replacing the fictional enemy factions.³⁹

These new factions included: the Syrian Arab Army, Hezbollah, a generic Middle Eastern army, Middle East Irregulars, Quds Force, Hamas, the Taliban, the Islamic State, Boko Haram, a generic African Military, generic African Irregulars, generic South East Asian Irregulars and Middle Eastern civilians. The creators of this mod also recommended that users download and apply the "Tactical Beard" mod to give beards to the Taliban in order to make the enemy more realistic.⁴⁰

³⁹ Chops and Drongo, "Middle East Conflict mod," ArmaHolic, last accessed February 12, 2015 http://www.armaholic.com/page.php?id=25419.

⁴⁰ iNTERBRED, "Tactical Beard," ArmaHolic, last accessed, February 12, 2015, http://www.armaholic.com/page.php?id=25411



Figure 15: MEC mod of the Taliban (source: http://forums.bistudio.com/showthread.php?176424-Middle-East-Conflict-mod).



Figure 16: MEC mod of the Islamic State (source: http://forums.bistudio.com/showthread.php?176424-Middle-East-Conflict-mod).

The incorporation of these new factions allowed for a more realistic and authentic combat experience as the narrative was now derived from the real world as it is perceived, rather than as it could be in 2035. As one commentator noted,

Looks pretty spot on.

For Hezbollah, you should vary the baklava with green and black versions, and if possible, add the headbands to some units.

For the Irregulars, needs bushy beard and some mixed western looking faces (Chechen, etc...).

Otherwise, fairly accurate set of current event players.⁴¹

Once again, there appeared to be an emphasis on accuracy and completeness in the real world models used in these modding practices. However, the modders were not necessarily using empirical reality, or first-hand knowledge, for their mods. This was clearly evidenced by a series of exchanges between the MEC modder, Drongo, and a gamer wanting to incorporate another real world faction into the game. Here, the gamer eventually provided Drongo with a collection of Google images to use as models:

redarmy: Drongo,

Would you consider adding Hamas to your middle eastern pack?

I am making a defend Gaza style scenario, would love Hamas as an addition.

With yet "another" isreali ground incursion brewing,i feel we will be seeing(or not) this in the news in time to come.

I don't know much about Hamas. What kind of gear and uniforms Drongo69: do they use? Couldn't they be represented by the ME Irregulars?

A link to any representative pics would be very helpful. Then I'll

have to bother Chops, he does the texturing, I just do the configs.

⁴¹ Valken, comment on "Middle East Conflict mod," ArmaHolic, last accessed February 12, 2015, http://forums.bistudio.com/showthread.php?176424-Middle-East-Conflict-mod, emphasis added.

redarmy: Allready poking around for some, when i get a link will share it with

you andyou can see what you make of it.

Thanks drongo.

. . .

https://www.google.com.tw/search?q=h...w=1178&bih=583.

I couldnt get direct links to the exact pics i wanted to show. However those images(mainly top of the page) are something like i was talking about.

Sorry its a link to google images.

CIV clothes, with the balaclava green bandana look really decent in my opinion.⁴²

In addition to realism and modeling based on visual representations, others gamers asked Drongo to incorporate different audio and language mods into the modpack to complete the enemies:

Hey, I was thinking it would REALLY improve the immersion of this mod and make it much more realistic if the rebels spoke Arabic, along with the SAA. The voices can be fairly simply ported from Arma 2: OA, from what I understand. Kaelies has already done this successfully with the Russians and Czech speaking units of his mod, you could probably contact him for instruction if you don't know how to do it. Thanks!⁴³

Some other Middle Eastern themed mods had already incorporated this desire for accurate audio models. As they noted on their Reddit post, the creators of the "Islamic State Mod" had "replaced the more conventional orders with 8 samples of 'allahu akbar."⁴⁴

⁴² redarmy and Drongo69, commenting on "Middle East Conflict mod," ArmaHolic, last accessed February 12, 2015, http://forums.bistudio.com/showthread.php?176424-Middle-East-Conflict-mod/page7, text appears as it did in the original, emphasis added.

FistoGames, commenting on "Middle East Conflict mod," ArmaHolic, last accessed February
 22, 2015, http://forums.bistudio.com/showthread.php?176424-Middle-East-Conflict-mod/page4.
 Churrofighter, "Islamic State Mod," Reddit, last accessed February 12, 2015, http://www.reddit.com/r/arma/comments/2s5vli/islamic state mod/

These mods are interesting with regards to modeling as they illustrated a number of gaps, particularly at the gamer-level. Borrowing from Clifford Geertz's (2000c:15) notion of the order interpretations, I argue that these mods were actually at least fourth-order models. Geertz noted that only a native of the culture could make a first-order interpretation and therefore any anthropological interpretation was a second-order one, an interpretation of an interpretation (see also Goffman 1974 on frame analysis and laminations). This hierarchy of interpretation also manifested in the gamer-made mods. Enemy identity mods began with the first-order models produced by people who experienced the enemies in real life as soldiers. Though it was this experience that the mods attempt to replicate, unless the modders were soldiers themselves, it was not possible to access the experience at this level. However, these first-hand accounts were available to the media covering the conflicts, which in turn produced widely accessible second-order models. Modders then used the various articles and news stories, and even third-order Hollywood interpretations, to construct in their minds the third-order models. Finally, these gamer-level models were digitally reimagined in ArmA 3 as mods and fourth-order models.

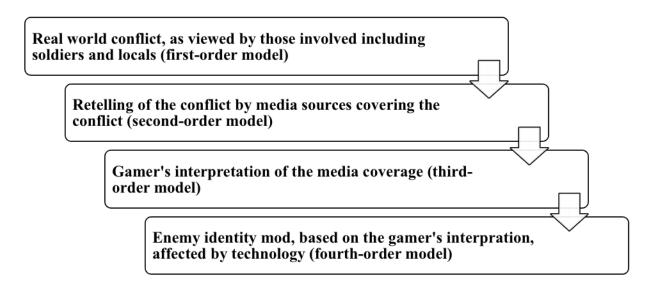


Figure 17: Diagram of the Order of Models found in the milsim modding process

Gaps existed between every level of these models, some due to technological restrictions others to the modeling process. Though all of the identity-based mods were considered third-, fourth- and even fifth-order models, the gaps that existed in enemy identity mods were far vaster. This was due in part to modder agency and the nature of media representations of the War on Terror.

Within the *ArmA* 3 modding community, modders possessed a great degree of agency when constructing their own national identity mods in that they controlled what was included and what was not. Additionally, former and current serving soldiers played *ArmA* 3 and provided a degree of authenticity to these mods through critiques based on their first-hand knowledge. Such power over representation was not bestowed upon the real world models for the enemy identity mods I studied. Instead, Western modders made decisions about authenticity and realistic representations, which were based on third- or fourth-

⁴⁵ One might argue that soldiers could provide corrective feedback on the enemy identity mods, but throughout my fieldwork I did not encounter any.

order models and interpretations. To my knowledge, members of the foreign armies or civilian populations were not consulted as to the 'accuracy' or 'completeness' of the mods and did not play an active role in their construction.⁴⁶ As a result, gaps were allowed emerge here without correction and were particularly evident in the War on Terror mods.

This is not to imply that the modders intentionally created these gaps due to some sort of overt, community-endorsed racism. Rather, I wish to implicate the media's problematic portrayal of people from the Middle East and Afghanistan. As Markus Schulzke (2013) notes in his discussion of envisioning the terrorist enemy, for many individuals the media was the *primary* source for experiencing terrorism, it was one of the only models these modders had access to. Yet, as I have argued, these representations were not *primary-order* models. Furthermore, accurate, complete or fair representations of people from the Middle East and Afghanistan have rarely been found in Western media or popular culture (see Shaheen 2003 for a detailed analysis of this history) so it is unsurprising that such gaps emerged in the enemy identity mods.

These inaccurate and incomplete ideas have been translated into videogames in simplistic ways. As Schulzke notes, "the strange simplicity and homogeneity of enemy avatars reinforces the narrative of the inhuman enemy. Enemies tend to have very limited dialogue, only shouting a few insults or commands to each other" (2013:209), which sounds strikingly similar to the mod

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⁴⁶ This is not to imply that modders are all white males from Western countries. Rather, I contend that as with Hollywood portrayals of 'enemies,' a diverse audience does not necessarily result in fair representations or consultation.

that replaced speech commands with "allahu akbar!" Additionally, faces, bodies and identities are "often identical and lack the same indications of individuality as the heroes' avatars" (Schulzke 2013:209). This pattern of representation is carried over into the mods, exemplified by the generic faces seen in many of the enemy mods (see Figures 16 and 17). Furthermore, there is a history of such processes within the genre, which serve to obscure the moral issues of war. "The gamer has the option of either shooting the approaching enemy or ceasing to play... in order to avoid the moral issues tied to urban warfare, the Middle Eastern city must be transformed from a teeming habitat into a childless and (often) womanless territory occupied primarily by terrorist guerrillas." (Hoglund 2008). Following in Giorgio Agamben's (1998) discussion of *homo sacer* and bare life, the dehumanized enemy, the terrorist guerrilla, is one that can be killed but not sacrificed.

Again, the intent of this discussion of gamer-level gaps is not an indictment of the mods themselves or the modders who produced them, but rather it illustrates the precarious nature of modeling and representations.

Realism mods

Realism can have many meanings depending on the context; therefore before an analysis of realism mods begins, some notes on what I mean by 'realism' and 'realistic' are necessary. What I refer to as realism mods are those that attempt to replace, or build on, existing *ArmA* 3 content as a means of creating a more realistic combat experience. Realistic, as used here, also implies present tense. As such, Invasion-1944 might have been a realistic modeling of World War II, but

it is not considered a realism mod due to its historical nature. As a result, realism mods involved modeling weapons and vehicles after present-day models.

This definition of 'realism' is derived from conversations with members of the milsim community, who explained that realism referred to what was in the world now, what they would wear, fire and drive if they enlisted today. As one interviewee noted during our conversations,

Arma 3 is set in the future (Sort of) and thusly most of us weren't too enthused about the lack of familiar weaponry... [We] want to see M16s and AK-74s instead of MX rifles and MTAR carbines in the hands of our ingame soldiers ... We want Chinook helicopters instead of futuristic Ghosthawks. People didn't care for the future Multi-Terrain-Pattern camouflages and wanted contemporary Adaptive-Camouflage-Uniform patterns instead. (Neptune, personal communication, October 1, 2014).

As a result, gamers began to modify the game's content to reflect the desired contemporary, and by extension, realistic weaponry and vehicles. The Unit, for example, installed the "AV IndUs" mod, which was modeled after current United States Army camouflage patterns. ⁴⁷⁴⁸ Through forum discussions this mod was critiqued by community members and repeatedly redesigned to perfectly reflect the real world model. ⁴⁹ This was an excellent example of how the community could enact their collective knowledge of the real world military to co-produce content that is continually brought closer to the real world inspiration. Through this modeling process, the gap between the virtual product and real world model

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⁴⁷ AlexVestin, "AV IndUs," ArmaHolic, last accessed February 12, 2015 http://www.armaholic.com/page.php?id=21361.

⁴⁸ While this may sound similar to the cosmetic identity mods discussed above, I argue that the defining difference here is purpose of use. With the cosmetic national identity mods, the intent was to recreate a realistic national identity. However, the Unit's use of the "AV IndUS" mod is intended to replace the futuristic uniforms with contemporary ones. Additionally, the Unit's international membership precluded the construction of a national identity through this mod.

⁴⁹ "AV_IndUs (US Army inspired units)," BI Forums, last accessed February 12, 2015, http://forums.bistudio.com/showthread.php?158193-AV_IndUs-%28US-Army-inspired-units%29

was seen to be narrowed and gamers were one step closer to the desired real world combat experience.

However, during my time observing the forum and unit discussions, a new set of gamer-level gaps emerged when discussing what constituted this contemporary, and therefore realistic, content. A subsection of gamers began to challenge the community's model for contemporary content by drawing on their individual knowledge of the real world militaries, knowledge that at times contradicted the models used to create the supposedly contemporary realism mods. These gamers argued that the models used for 'current' weaponry and vehicles were actually out-dated, while the futuristic technology Bohemia Interactive initially introduced was more in-line with what was being produced and deployed by real world militaries. In response to the question of why *ArmA 3* was lacking in existing high-tech weaponry, one commenter explained,

Because when the first screen of rail gun tanks came out everyone fucking panicked and a lot of the high-tech stuff was dropped. Even though in the real world, right now, we have intelligent scopes, glasses with NV and Thermal, lasers, active armour, rail-guns, exo-skeletons and some pretty crazy drones in the works.

But all anybody wanted was fucking AKs and AR-15s, even though a large number of us in the community like the change in scenery. Considering they made all previous assets available, I'm hoping we see some more future *current*-tech in DLC and patches.⁵⁰

It became evident that there was a gap between the real world as it was and how the community collectively understood, or imagined, it to be. Yet, as the modding

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⁵⁰ wildkidau, comment on "If Arma 3 is set in the future, why is there nothing like this? [X-post /r/militarygfys]," Reddit, last accessed February 12, 2015, http://www.reddit.com/r/arma/comments/2hknlb/if_arma_3_is_set_in_the_future_why_is_there/, emphasis added.

practices indicated, a great deal of time and technology was being dedicated to producing content that fit the community's model rather than engaging with the possibility of changes in the model. As one commenter lamented, "Even in the modding department, almost everyone is concentrating what we have (or had in the past). Nothing near-future, futuristic or straight sci-fi."⁵¹

This was not unlike the gaps found in classic anthropological kinship where models were developed based on anthropological constructions and placed over other cultures. As in *ArmA 3*, the model did not always reflect empirical reality, nor did it order the actual social relations well (Schneider 2011:452, 461). While Schneider laments that for kinship studies "too much time, effort, and energy are spent in mending the model, in protecting it from new data, in insuring its survival against attacks" (2011:486), I argue that this expenditure of time, effort and energy was what narrowed the gap between the model and reality rather than furthering it into symbolic abstraction. As discussed above, constant community input into the design aspects of cosmetic mods allowed for the evolution of content, which in turn produced a model that has the potential to be closer to reality, but only if the community was willing to accept the criticisms of their models.

Realism was not only achieved by redesigning weapons and vehicle technologies to model those found in the present real world. For some gamers it was the quality of environment and plausibility of the conflict's context that

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⁵¹ Draakon0, comment on "If Arma 3 is set in the future, why is there nothing like this? [X-post /r/militarygfys]," Reddit, last accessed February 12, 2015, http://www.reddit.com/r/arma/comments/2hknlb/if_arma_3_is_set_in_the_future_why_is_there/.

determined authenticity and realism. Here, a number of factors contributed to the construction of virtual environments, which I categorize as either visual or auditory. In *ArmA* 3 visual factors included plant life, geology and terrain, buildings or a purposeful lack thereof, animals and people, while auditory factors included ambient noise, weapons and vehicle sounds, music and human voices. In order to create a realistic model of a specific place in the game, many of these factors also had to be successfully modeled. For example, if one wanted to foster a sense of realism by engaging members of the Taliban in combat, then the environment and context – not just their clothing and beards – should reflect the area of real world where this confrontation would take place.

Many of the environment-related mods worked off of existing Bohemia Interactive landscapes, known as maps. For instance, in *ArmA 2: Operation Arrowhead* (2010), there was the fictional country of Takistan, which much of the community believed was based on real world Afghanistan.⁵² Here, gamers could engage with Taliban like enemies and recreate current military conflicts. This map was adapted for *ArmA 3* through the "All in Arma Terrain Pack" mod so that gamers could continue to play in a setting that modeled Afghanistan.⁵³ Naturally, there were gaps between the Takistan and Afghanistan. Takistan was never designed to be a perfect replica of Afghanistan, rather it was a fictional place that resembled the country. It was also limited by the number of pixels and time available to the designer.

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⁵² "Where is Takistan?," Bohemia Interactive Forums, last accessed February 17, 2015, http://forums.bistudio.com/archive/index.php/t-111060.html.

⁵³ kju, "All in Arma Terrain Pack (AiA TP)," ArmaHolic Forums, last accessed February 17, 2015, http://www.armaholic.com/page.php?id=26682

Other mods attempted to close this gap by purposefully replicating the terrain based on satellite imagery. The "Kunduz, Afghanistan" mod, a model of the Kunduz Province in Afghanistan, and the "F.A.T.A. – Federally Administered Tribal Areas, Pakistan" (F.A.T.A.) mod, based on the tribal areas of Pakistan, added new landscapes for gamers to engage Taliban members in. 54,55 Neither mod was an exact replica of the area, as the F.A.T.A. mod only encompassed a 10x10 km map, but the intent was to recreate an authentic looking map that is free of fictional narratives. The "Afghan Village" mod was an additional component of the F.A.T.A. mod, which incorporated Afghani style buildings, roads and area specific vegetation to the map.⁵⁶ This mod also illustrated how these environments could be updated to reflect changes in the real world models. With these mods, and ones like them, the modders identified the muddles in Bohemia Interactive's models and sought to mitigate them. However, their models in turn did not quite 'fit' with the reality they modeled. Despite their best intentions and access to Google Earth images, the modders were unable to produce a model that completely and accurately represented reality. This produces a realistic gameplay experience, but does not quite capture the real experience (Hoglund 2008).

Audio-based mods were also employed to alter the 'feel' of the game, some of which were dedicated to general environment enhancement while others

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⁵⁴ Project Reality, "Kunduz, Afghanistan," ArmaHolic Forums, last accessed February 17, 2015, http://www.armaholic.com/page.php?id=27882.

⁵⁵ Minimalaco and Robster, "F.A.T.A. – Federally Administered Tribal Areas, Pakistan," ArmaHolic Forums, last accessed February 17, 2015, http://www.armaholic.com/page.php?id=22057.

⁵⁶ Minimalaco and Robster, "F.A.T.A. – Federally Administered Tribal Areas, Pakistan," ArmaHolic Forums, last accessed February 17, 2015, http://www.armaholic.com/page.php?id=24232

focused on context development. The "J.S.R.S. Soundmod – Creepy Forests" mod, which played ambient noise when a user was in a forest at night, illustrated a mod that was designed to enhance the basic sounds of an area, but did not affect the story or narrative.⁵⁷ Other sound mods, such as the "Israeli Air Raid Siren" mod, added contextual noises. Taken from the modder's ArmaHolic posting:

Ok here is something which I made for my own private use, but since so many people have asked me to release this or have been looking for something like "Air Raid Sirens" etc. ... so here it is.

I was in Israel a few months back when I heard the sirens about to start up, so quick thinking I picked up my sound recorder and recorded this perfect sound of what is sadly a daily thing in Israel.

What you hear in the demo mission is the real thing, there is no other sounds .. just a pure Air Raid Siren recorded in Israel and edited by myself then converted to a .ogg sound file.⁵⁸

Another mod, the "Mosque Environment Sound" allowed gamers to add a sound to localized areas, specifically where mosques appeared on city maps.⁵⁹ When gamers approached mosques in-game, the mod would play the azan, or the Islamic call to worship. As the modder notes, "... as you know if you have been to the middle east, ie Afghanistan or Iraq then you will hear this stuff everyday. So all ive done is found a good Azan Mosque sound [sic] so that you can have a more *realistic* approach to the game and feel more like your in the middle east." This illustrated the importance some modders placed on authenticity in their

⁵⁸ DarkXess, "Israeli Air Raid Sirens," ArmaHolic Forums, last accessed February 17, 2015, http://www.armaholic.com/page.php?id=12598.

⁵⁷ LordJarhead, "J.S.R.S. Soundmod – Creepy Forests," ArmaHolic Forums, last accessed February 17, 2015, http://www.armaholic.com/page.php?id=18409.

⁵⁹ DarkXess, "Mosque Environment Sound," ArmaHolic Forums, last accessed February 17, 2015, http://www.armaholic.com/page.php?id=13127.

mods, while also showing what was perceived of as being a necessary sound for making complete missions. Each addition addressed a small muddle in the existing model, helping it to fit just a bit better.

Finally, many gamers replaced the original weapon sounds with custom sound mods that claimed to be more realistic than those provided by Bohemia Interactive. The comprehensive sound mod, "JSRS2.2," added over 5500 new sound effects and created an entirely new sound environment. 60 This was yet another example of how gamers attempted to close the gap between virtual and real. In the real world sound travels over distance and is heard differently depending on the location; this was not the case in the *ArmA 3* landscape, which could feel flat or two-dimensional. This mod attempted to bridge this gap by implementing a 'distance script' that employed three-dimensional modeling. This meant that different sound effects would be played at different ranges and when the gamer was in a vehicle or building, giving a feeling of depth and space to the game.

Functional mods

In addition to cosmetic mods, milsim units employed mods that fixed the game's mechanics, which I refer to here as functional mods.⁶¹ These mods helped to bridge gaps that emerged when the in-game content functioned in ways that were inconsistent with a real world combat scenario. These mods addressed a number

⁶⁰ LordJarhead, "JSRS2.2," ArmaHolic Forums, last accessed February 17, 2015, http://www.armaholic.com/page.php?id=22150.

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⁶¹ Also referred to as utility mods.

of issues related to perceived flaws in Bohemia Interactive's modeling, but for the purpose of this section I will focus on the use of radio, artificial intelligence (AI) and sensory compensation mods and the gaps they attempted to bridge.

Radio mods

ArmA 3 relies heavily on the use of verbal communication, rather than text-based chats found in many other games. In my experience this was necessary given that the game required near constant use of the hands and keyboard, unless the gamer used a mouse with the commands mapped on its buttons, which made text-based chat difficult.⁶² It was also more immersive, as the gamers were simply able to talk, give commands and listen for orders as they would in real life without breaking the immersion by typing and reading. ArmA 3 contained its own voice-over network (VoN) to enable this verbal communication, however, a number of gamers expressed to me that it was "a bit buggy" and that actually hindered their communication attempts.

Many of the milsim groups I interviewed and observed replaced the *ArmA* 3 VoN with the Voice-over Internet Protocol (VoIP) communication tool

TeamSpeak. It allowed users to enter into channels that functioned much like a room in a house in that anyone in that channel could hear what was being said, but once someone left that channel they could no longer listen to the conversation. However, this system was not an effective one for larger groups.

As one gamer explained,

⁶² Some computer mouse models have additional buttons on them, which can have commands mapped onto them. This allows gamers to control the game primarily with the mouse and thumb, rather than both hands and the keyboard.

The teamspeak system was a nightmare for larger groups. Teamspeak has a whisper system that allows you to send voice messages to members of the teamspeak server that aren't in your channel or specifically to that person privately. This was turned into a sort of radio net for command and control in the teamspeak. Different units broke things up into different sized groups. The one I played with kept each infantry section/squad in one channel and the section/squad leader and his assistant leader both set up their whispers and keybindings. Everyone else, up to eight or nine people were all in one channel talking. It was wonky and confusing if you hadn't ever done it before and sometimes it would just stop working. (Neptune, personal communication, October 1, 2014).

In addition to being complicated, this basic system was not a realistic representation of how command and conversations would take place in a real world combat situation. In the real world, if the soldiers were using a line formation, members at either end of the line would not be able to hear each other speak as if they were standing next to each other. Using TeamSpeak without mods meant that gamers could hear one another as if they were shoulder to shoulder, regardless of their avatars' positions. To compensate for this complicated and unrealistic method of communication, radio mods were developed to facilitate radio use and immersion.

Perhaps the most widely used and effective radio mod was "Task Force Arrowhead Radio" (TFAR).⁶³ Through TeamSpeak, TFAR and *ArmA 3* were able to "communicate to relay the location of talking players and orient them around the user" (Neptune, personal communication, October 1, 2014), creating a sense of virtual space. An avatar that was closer would sound louder, while one over a hill might not even be audible.

⁶³ [TF]Nkey, "Task Force Arrowhead Radio," ArmaHolic Forums, last accessed February 20, 2015, http://www.armaholic.com/page.php?id=23615.

The use of TFAR resulted in some interesting behavioral habits in-game. While observing the beginnings of a mission on Twitch, I heard the streamer, Juno, mutter "Where's Omaha?" and watched him look around the vehicles they were going to use in the mission, trying to locate his friend. Upon finding him he exclaimed, "Oh! There he is!" and moved his avatar next to Omaha's. At first I thought this was odd, but I soon realized that the two friends would not be able to communicate with one another unless their avatars were standing next to one another, much like real life.

This need to be near one another to talk also shaped how members of the Unit 'buddied up,' which is a "procedure in which two people operate together as a single unit so that they are able to monitor and help each other." As a result, if gamers wanted to communicate with their friends throughout the game, they would need to ensure that they were buddies, or at the very least on the same fire team. Most milsim units I observed did not have many out-of-game conversations, preferring to focus on the mission and simulation, but there still seemed to be a sense of preference when it came to who the gamers chose to game with.

This radio system also allowed for greater modeling in-game through its whisper, normal and yell functions. Most gamers kept their communication set to 'normal' so as to communicate with those next to them. However, if one member needed to make himself heard, he had the option to yell so that everyone heard the command. Alternatively, this function allowed gamers to whisper to one

 $^{\rm 64}$ The Unit, field manual 2014, provided by Utah to author.

another creating semi-private conversations, the content of which occasionally included cracking jokes at their leader's expense. This system allowed conversations to sound and flow in a more natural and realistic way.

TFAR also incorporated real world radio propagation, the behaviour of radio waves when transmitted, and attempted to replicate these patterns ingame. Rather than the clear audio communication one would get with the ArmA 3 in-game VoN or un-modded TeamSpeak, gamers experienced radio transmissions that were affected by terrain. As the creators noted on their site, "Radio propagation is affected by terrain. Worst case - if you right behind the steep hill. If you go from hill edge into direction from transmitter you will get better signal propagation. Best case - line of sight."65 It also took into account the way sound travels through water for when gamers used diving in their missions. Using TFAR in such missions meant.

You cannot talk underwater (even wearing a diving suit). However, at close distance your companion can hear some indistinct speech (exception - if you are underwater in an isolated vehicle).

Being underwater, you can faintly hear muffled voices on land.

Use an underwater transceiver for communication among divers.

You cannot use radio communication underwater (neither to talk nor to hear). If you want to pass some message on land - surface. Exception submarine in the periscope depth (divers can use a long range radio there).66

⁶⁵ Task Force Arrowhead Radio website, "Information - Radios," last accessed February 20, 2015, http://radio.task-force.ru/en/.

⁶⁶ Task Force Arrowhead Radio website, "Divers," last accessed February 20, 2015, http://radio.task-force.ru/en/.

Additionally, if groups used the 'serious mode' once a player was killed in-game, they could no longer communicate with the rest of the unit until the mission had ended. While these aspects of the mod might seem like a hindrance to communication, they actually served to increase realism through modeling the less beneficial, yet very real, aspects of radio communication. As a result, this gap narrowed many gaps between the real world and the virtual one provided by Bohemia Interactive.

Artificial Intelligence (AI) mods

Throughout my fieldwork, on every site I visited, conversations about enemy AI were being had about how frustrating the original AI scripts Bohemia Interactive developed were. In *ArmA* 3 AI Accuracy and AI Skill are linked in the Game Option section, which meant that if a player wanted to have a skilled opponent, the AI became decidedly better marksmen.

During one of our conversations, Utah explained that when the difficulty setting was set to what his group enjoyed, the Al would "be able to shoot you from like miles away and like, one shot, BAM! You're dead. And that's obviously quite frustrating if you spent all this time manoeuvring to some position and then you just get shot because there is an Al standing 700 meters away with a gun." Alternatively, gamers could dial back the difficulty to achieve realistic accuracy. However, another gamer explained in a Reddit post that "In order to get

reasonable AI accuracy, you have to drop them to 20 skill. This also makes them fucking retarded."67

The issues with AI were not exclusive to enemy ones, however, as they also affected the AI squad members. This is illustrated by the rather hilarious story one gamer told in a discussion of AI on Steam,

I was playing a mission earlier where I had an AI squad mate equipped with a 30 round magazine, and he proceeded to unload all 30 rounds into the ground at the feet of the first enemy we encountered. I guess it was a nice distraction, but rather strange. The next playthrough I went solo, but the enemy AI that I was engaging acted very strangely, two of them low crawling perpendicularly to me, directly in front of me, for a good 30 seconds. The next playthrough, I began picking off AI from a good distance, and the only unit brazen enough to fight back at me ran in a serpentine pattern ... directly at me, well within 100m...

They are suicidal, crazy, and quite stupid, but they are charming in their own way. Keep repeating to yourself ... this game is a simulation environment, for human AI to act right they require the processing power of a human brain. We have it starting to show up on our desktops now, but at the moment it's rather busy rendering the rest of the game environment, not one individual soldier. :D ⁶⁸

As a result, gamers were forced to contend with either unrealistically accurate or unintelligent enemy AI and neither option promoted a sense of realism. This was an excellent example of a gap between the capabilities of real world enemies and how Bohemia Interactive modeled them. The models were flawed and thus the enactment of them – the simulation – was bound to be as well. To compensate for this gap, modders wrote new scripts to modify the enemies and attempted to

⁶⁸ dwringer comment on "Aim and Behaviour of AI," Steam Community, last accessed February 20, 2015, http://steamcommunity.com/app/107410/discussions/0/864975632549451465/, emphasis added.

⁶⁷ Jester814, "For those of you new to ArmA, this is how you set your Al accuracy to a more reasonable level," Reddit, last accessed February 20, 2015, http://www.reddit.com/r/arma/comments/1m6uys/for_those_of_you_new_to_arma_this_is_how_y ou set/.

give them the processing power of a human brain. They attempted this by focusing not only on the accuracy and difficulty of the AI, but on their behaviour as well. This was meant to get them working as a team and as soldiers who responded properly to the different combat situations.

The "bCombat infantry AI Mod" rewrites the AI scripts to achieve these more human-like AI.⁶⁹ One interesting aspect of this mod is that its creator chose to focus on his understand of how group "morale" would affect the behaviour of soldiers. Rather than simply giving the AI increased difficulty and scaled back accuracy, the mod attempted to reconfigure the AI to respond to events in human ways. According to the creator, morale would affect both AI behaviour and combat effectiveness, meaning they would act aggressively or passively depending on their understanding of the circumstances. Additionally, combat events, such as the sounds of gunfire, suppressive fire and nearby explosions would force the AI to react in realistic ways. Previously the AI could often be easily eliminated due to ineffective responses. With the mod, "AI units proactively lay suppressive fire and suffer sensible morale / skill penalty when suppressed."⁷⁰

Technological restrictions have hampered the creation of truly realistic AI in *ArmA* 3, especially ones complete with human-like behaviours and accurate responses to environmental stressors. One could argue that the inclusion of additional responses and behavioural models would aid in closing the gaps. The

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⁶⁹ fabrizio_T, "bCombat infantry Al Mod," ArmaHolic Forums, last accessed February 21, 2015, http://www.armaholic.com/page.php?id=23969

⁷⁰ fabrizio_T, "bCombat infantry Al Mod," Bohemia Interactive Forums, last accessed February 21, 2015, http://forums.bistudio.com/showthread.php?171436-OPEN-BETA-SP-bCombat-infantry-Al-Mod.

Human Terrain (HT) projects carried out by the United States Department of Defense have sought to simulate and predict insurgent activity through complex modeling in a similar manner. They incorporate into their programs "physical stressors such as ambient temperature, hunger, and drug use; resources such as time, money and skills; attitudes such as moral outlook, religious feelings, and political affiliations; and personality dispositions such as response to time pressure, workload, and anxiety" (González 2013:70). This is done to close the gaps between their models and empirical reality.

However, I contend that even if similar stressors and cultural data were included in the *ArmA 3* mods, it would not be enough to completely close the gaps between real human and virtual human. As González (2013) argued in his critique of HT programs, even though soldiers from the field brought back cultural data for the governments insurgency modeling processes, "such efforts pursue an outdated model of a reified, neatly bounded, homogeneous culture that doesn't really exist. Finally, throughout this process it appears that the programmers (and those playing the game) are viewing Iraqis and Afghanis not as people but as nonpersons, virtual persons" (2013:73). It becomes clear that complex models are not capable of closing existing gaps. More data does not necessarily result in better fitting models, but rather creates new levels of gaps.

Turning once more to the AI enemy mods, the question arises as to whether or not these mods narrow or expand their gaps. During my fieldwork the AI mods certainly increased realism by correcting the AI's behaviour to accuracy ratio and there was a desire for AI to 'act right' in the *ArmA* 3 community, for AI to

respond to environmental stressors as evidenced by the inclusion of morale models. But many questions remain: at what point does a mod designed to increase the humanness of AI begin to dehumanize them, as the HT programs did? And will Orientalist discourse affect the way AI behaviour is written as it did for the enemy identity mods?

Sensory compensation mods

Finally I wish to explore the use of sensory compensation mods, which I contend were created to bridge the gap formed due to limitations on maintaining in-game situational awareness. Situational awareness refers to knowing everything that goes on around the gamer's avatar, including where teammates and enemies forces are. In their field manual, the Unit describes situational awareness in detail:

Situational awareness is dynamic, hard to maintain, and easy to lose. Knowing what is going on all the time is very difficult for any one person, especially during complex high stress operations. Therefore it is important that we know what behavior is effective in keeping us situationally aware. The following actions can help a team retain or regain situation awareness.

- Be alert for deviations from standard procedures.
- Watch for changes in the performance of other team members.
- Be proactive, provide information in advance.
- Identify problems in a timely manner.
- Show you are aware of what's going on around you.
- Communicate effectively.
- Keep abreast of the mission status.
- Continually assess and reassess the situation.
- Ensure that all expectations are shared for complete awareness by the whole team.

However, in my conversations with members of the Unit, I learned they were hindered in this endeavor as the game lacked human-like peripheral vision and

"that sense of 'feeling' when someone is nearby." This made maintaining an awareness of the other members in the team difficult.

There was a common saying in the milsim community, one I came across during boot camps, in training videos and field manuals: *keep your head on a swivel*. Derived from real world military tactics the saying was meant to remind gamers to actively keep an eye on their surroundings and to not develop tunnel vision. In *ArmA 3*, this meant constantly shifting the camera angle from left to right.

While keeping one's head on a swivel was important in real world conflicts as a means of avoiding bodily harm, in *ArmA 3* it was also one of the only ways of compensating for the game's lack of peripheral vision. While this swivel helped to increase the range of sight, it did not completely solve the issue of peripheral vision, nor did it compensate for the gamer's inability to 'sense' where other members of the unit were. The real world 'sense' was something that could not be replicated online, as the gamer could not fully embody the avatar and take his senses with him. Consequently a gap emerged between the real world possibilities and virtual world restrictions, one that using real world military tactics could not fully bridge. In order to narrow this gap, sensory compensation mods were developed.

There are a number of these mods in the community; however, I focus here on the use of the "ShackTack Fireteam HUD" (STHUD) as it is one of the most widely used of these mods, as well as the one chosen by the Unit.⁷¹ I also

⁷¹ zx64, "ShackTac Fireteam HUD (STHUD) and Group Indicators (STGI)," ArmaHolic Forums, last accessed February 22, 2015, http://www.armaholic.com/page.php?id=9936.

chose this mod as it illustrated how gamers dedicated to modeling and realism in their modding practice could accept certain gaps in the model, if the benefit derived from closing others was deemed greater.

dslyecxi, one of the members of the STHUD mod's development team, explained that the mod's purpose was to "smooth out game play and bridge the gap between reality and simulation." This indicated to me that there was an awareness of gaps in *ArmA 3*, as well as a desire to use mods to overcome them. The STHUD mod was designed to "provide situational awareness on where your fireteam members are and what their orientation is. This is intended to represent both peripheral vision, as well as the extended awareness one has in reality. You only see your fireteam members relative to you – no terrain, no other players/units." In order to accomplish this aim, however, the mod required the introduction of HUD technology.

HUD stands for 'heads up display' and is similar to Google Glass. They have historically been common in many video-games and often relay information to the gamer about the avatar, such as percentage of health left and ammo supply, which the avatar would likely not know, at least not with such accuracy. Some gamers have argued that HUDs break immersion or are unrealistic as neural implants are not currently feasible.⁷⁴ As a result, I became curious as to

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⁷² dslyecxi, "ShackTac Fireteam HUD for Arma 3," last accessed February 23, 2015, http://dslyecxi.com/shacktac-fireteam-hud-for-arma-3/.

⁷³ zx64, "ShackTac Fireteam HUD (STHUD) and Group Indicators (STGI)," ArmaHolic Forums, last accessed February 22, 2015, http://www.armaholic.com/page.php?id=9936.

⁷⁴ Kotaku, "How Close Science Is To A Real-Life 'Heads Up Display," last accessed February 23, 2015, http://kotaku.com/how-close-science-is-to-a-real-life-heads-up-display-1602007141.

why gamers would choose to add an extra layer of unrealistic technology to a game they tried very hard to model after the real world.

The STHUD mod functioned much like a compass that was always visible at the bottom-center of the screen. The compass contained three circles, representing ranges of 15, 30 and 45 meters. Within these circles group members were indicated by icons assigned based on the gamer's role in the mission. For example, a medic would have an asterisk inside the circle and the team leader would be a different colored icon from the rest of the group.

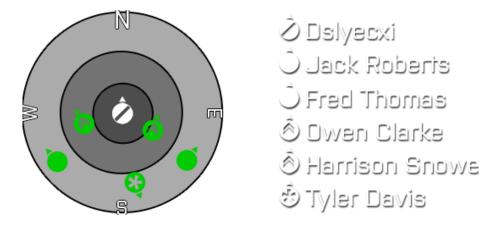


Figure 18: The STHUD mock-up (source: dslyecxi, http://ttp3.dslyecxi.com/3_the_company.php). In his video on how to use the mod, dslyecxi explained that "If you're within three meters of one of your group mates, you'll see their icon change colour to subtly remind you to not bunch up."⁷⁵ This allowed members of teams to keep their formations and watch their assigned area, as well as attain a greater degree of situational awareness.

⁷⁵ dslyecxi, "ShackTac Fireteam HUD for Arma 3," last accessed February 23, 2015, http://dslyecxi.com/shacktac-fireteam-hud-for-arma-3/.

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Figure 19: STHUD in game (source: dslyecxi, http://forums.bistudio.com/showthread.php?96791-ShackTac-Fireteam-HUD-(STHUD).

Though small, the mod was "an abstracted representation to the kind peripheral vision and extra-sensory input you have in reality."⁷⁶ To me, this mod broke, rather than increased, realism through the use of abstraction and brought to mind arguments over whether or not a third-person perspective could be considered realistic. Gamers had argued that the perspective of a real world soldier would be first-person, so that is how milsim should be as well. However, HUDs would not be a part of the same real world soldier's perspective, so why were they accepted?

I experienced what Hugh Gusterson (2001) described as a revolt against abstract modeling. In his work on nuclear weapons testing, he noted that there was resistance to the reliance on computer-based modeling to understand how

⁷⁶ dslyecxi, "ShackTac Fireteam HUD for Arma 3," last accessed February 23, 2015, http://dslyecxi.com/shacktac-fireteam-hud-for-arma-3/.

new weapons might function, as these models were simply never going to be exact recreations of the real experience; they would always be formulas and models. Younger colleagues, however, put more faith in these models and were willing to accept the potential gaps between their models and empirical reality, as they knew that empirical testing was not always an option. The mod, in my mind, was an abstraction of situational awareness and HUDs, much like the weapons testing, and it felt out of place in a game so eager to model with attention to empirical reality.

I contend that the gaps that emerged out of mod use were acknowledged and accepted because there was a lack of alternatives. Gamers wanted the real world situational awareness, but they also wanted their models to replicate the real world as it is — not the future. Due to technological restraints, they could only have one of these options, much like the nuclear weapons scientists. As one gamer noted in a discussion of STHUD, "Arma 3's immersive realism is powerful but can only go so far. In the end it's down to the hardware periphery ... But no matter what, in real life you have a much more acute situational awareness.

Because, you know, it's real life."77 This defense of using what I considered an unrealistic model was echoed throughout the milsim community. It appeared that gamers were willing to accept the abstraction in their gameplay — despite the obvious gaps it created between the real and virtual experiences — as they gained the ability to better model real world combat techniques.

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⁷⁷ Dan "Arma 3 Add-On Guide for more Realism and Immersion: ShackTac Fireteam HUD (STHUD) and Group Indicators (STGI)," Steam Community, last accessed February 23, 2015, https://steamcommunity.com/sharedfiles/filedetails/?id=199429872.

Modding media ecology

Before I conclude with a discussion of modeling and simulation processes as they pertain to modding, I would like to briefly discuss the field sites from which most of this data was derived: www.armaholic.com and www.forums.bistudios.com. Both of these sites existed together as nodes of meaning within the networked community of *ArmA 3*, and I contend constituted a new media ecology – a system of people, practices, values technology and digital media (Cool 2014). On these forums, modders were able to upload and share their own coded creations, but they did more than simply create and distribute; they blurred the boundaries between professional and consumer, becoming what Jennifer Cool (2014:173) refers to as a *prosumer* whose actions feedback into the production process. These modders had access to the code and software necessary to produce high quality content and modifications.⁷⁸

By uploading the mods onto these sites, they created "imperfect archives" wherein the modders could add to the metadata (data about data) gardens, such as the content, context and structure of the mods (Cool 2014:174-175). Non-modders were also able to comment on the mods, providing feedback for other gamers and at times the prosumers. They planted links to similar mods for inspiration or comparison, as well as ways to fix bugs in the code, and weeded out unhelpful comments and trolls. This garden was highly searchable due to this metadata, all of which came to be part of the new media ecology of modding. If a group was experiencing a gap in its gameplay, the lack of Canadian fatigues for

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⁷⁸ See "Make ArmA Not War," <u>www.makearmanotwar.com/</u>, for examples of such mods.

example, a simple search on either forum would direct them to various options.

The metadata gardens became vital parts of the modeling and simulation processes and became incorporated into the larger gaming network (ecology).

Discussion: precarious negotiations through modding

Milsim *ArmA* 3 gamers employed a variety of mods, as a means of creating what they believed was a realistic combat experience and as a way of closing the gaps that emerged throughout the game. Using the real world as a model, they sought to close gaps between reality and simulation, as well as between what Bohemia Interactive *could* and *did* provide. This created a rich and enduring community that utilized collective knowledge and co-production to achieve their goals.

Nevertheless, as *ArmA 3* was not a homogenous, unchanging collective, gaps began to emerge at the level of gamer-created content. This was clearly illustrated by the debate on what current military technology looked like and how it should be modeled in game. They also emerged when enemy identity mods fell victim to Orientalist discourse. None of the mods discussed here reproduced a perfect model of reality in game. They did, however, demonstrate new gaps between empirical reality and gamer perceptions of reality, as well as how these gamer-level gaps were in turn negotiated.

These mods can be understood through the lens of Huizinga's (1980) spoil-sport and magic circle. As discussed in chapters 4 and 5, the spoil-sport points to the fragile and tenuous reality of the game, that what they are doing is at the end of the day a game. I contend that these mods serve to mitigate the spoil-sport effect on the game. This spoil-sport, however, does not necessarily have to

be a real person, as Huizinga imagined. Using actor-network-theory (Latour 1996), I argue that the non-human actors, such as AI and radios, must be understood as having an impact on the ecology of the game, or as Huizinga would say, the magic circle. If the AI, for example, had super-human accuracy, or if the voices of fellow gamers did not carry over distance properly, immersion could be threatened. These non-human aspects of the game have the ability to impact the magic circle by pointing out the holes in its boundaries and exposing the game as virtual. Mods, then, were employed to patch these holes in the circle by narrowing the gaps in the various models employed. A new AI script or audio mod could bring the in-game experience closer in line with the models of what war is really like. This in turn would allow the simulation process to continue without a non-human spoil-sport pointing out the gaps and holes in the model they were enacting.

Perhaps what was of importance here was not the gaps and spoil-sport themselves, as it has been illustrated that they will always exist in the virtual world, but rather how the gamers chose to negotiate them. Current scholarly literature on modding often includes a discussion of modder agency and choice, or how through modding gamers manipulate and maneuver within the structure they are given (Nardi and Kallinikos 2010; Sotamaa 2005; Sotamaa 2010). Though discussions of individual action and agency were relatively absent from considerations of kinship models (Schneider 2011:480), I contend that these are central to understanding modding cultures, as they exist today. After all, modding in the *ArmA 3* community was the very definition of agency: purposeful

manipulation of an existing structure to suit the needs of the individual. This agency also meant that gamers were to some degree in control of the gaps that existed. They had the ability to narrow the gap between the real and virtual worlds, while their actions in turn produced new gaps. They could also choose to accept the gaps and move forward. It was when gamers chose to move forward that I realized a new level of gaps had emerged, which I have sadly labelled the anthropologist-level gap.

During my time exploring the modding community, I was constantly amazed at the extent modders were willing to go to achieve a real world combat experience, to narrow or bridge gaps. So consistently was there an emphasis placed on the accuracy and completeness of the mods, even if the model used was suspect, the modders believed they were getting closer to the real thing. In my mind I formed a second-order model of my own, one that posited milsim gamers as unwilling to deviate from realism, shunning futuristic or unrealistic addons. When the STHUD was brought to my attention I found I had been presented with a reality that did not match my model. I became like the structuralists who felt "cheated in some devious way" when empirical evidence challenged their structure (Schneider 2011: 452).

After stewing on this betrayal of my model, I read a post about STHUD on one of the forums, where dslyecxi noted that the mod was "ready to be used by those *who share similar views* regarding the game's relationship with realism."⁷⁹

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⁷⁹ dslyecxi, "ShackTac Fireteam HUD (STHUD)," Bohemia Interactive Studio Forums, last accessed February 23, 2015, http://forums.bistudio.com/showthread.php?96791-ShackTac-Fireteam-HUD-(STHUD), emphasis added.

Therefore, if gamers felt that the game was a better model of reality without the STHUD, they were not forced to use it and I am certain many elected not to. I was once again reminded of the diversity I had seen throughout my fieldwork and that different gamers wanted different things out of the game.

Utah once told me, "this is not what war is like, this is *ArmA*" yet he still chose to play the game in a milsim style. It occurred to me that while modding got the gamers a little closer to the 'desired real world experience,' a model of empirical reality might not always be necessary or even desired. Perhaps there were still some muddles in *my* models. Perhaps I still had much to learn about how the gamers really gamed.

Chapter 7: Falling into gender gaps

"IMO [in my opinion] this is a waste of resources, this is no different than the DayZ devs adding different soda cans and clothing... this is fluff amounting to countless wasted polygons and man hours. This will not change the game in anyway, it will simply just add another inconsequential character model."

- thad0ctor

An introduction to unforeseen gender gaps

Throughout my thesis work I have found my experiences as an anthropologist have paralleled those of my informants. Like Neptune, I encountered issues when my models of what the game or culture should look like differed from the reality I interacted with. Like Omaha and Juno, I came to terms with the gaps in my models and learned to live with – and enjoy – the gaps between the real and the virtual. Just as Utah has come to terms with the fact that ArmA 3 is different, though not inferior, to a real world experience, so to have I come to terms with the reality of my (cyborg) fieldwork.

One way that my experience diverged strongly from that of my participants was in relation to community perceptions of gender, or perhaps more explicitly, it differed due to my being a woman in an overwhelmingly masculine space. To be a woman in such a landscape was to be marked as an outsider, a surprise, and at times, a suspect. Initially, while I found these instances to be fascinating, if not mildly irritating, I disregarded them as irrelevant to my study. I deemed them as being too far removed from my interests in modeling and gaps. However, I later discovered that my experiences where similar to those the modders faced when their female soldier mods were unveiled and presented to the community. These mods quickly came under scrutiny by the community, in a way that paralleled my

own unveiling as a female gamer and researcher: they were deemed outside of and irrelevant to the game and reality; their development and the demand for their inclusion surprised and irritated many members; and they were treated with suspicion and heavy criticism. I argue that this pattern of behaviours occurred because the realism trifecta was threatened and gamer models were disrupted.

Schneider's discussion of modeling and gaps provides an excellent framework to understand both experiences in relation to the wider *ArmA 3* community. In both situations, the social reality presented to the gamers diverged or did not fit the model they had individually, or even collectively, developed. In some instances there were attempts made to modify the model to better fit reality, but in others there were attempts to reshape reality to fit the model. In this chapter I explore these negotiations related to my own experiences and the experiences of the gamers arguing on both sides of the female soldier debate.

Cyberindy's tumble into gender gaps

Preliminary research for this project began in the spring of 2013, though I did not realize it at the time. In April of that year I attended a panel discussion titled "Women in Video-games" at the Calgary Comic & Entertainment Expo. One of the panelists, a lead editor for the Canadian video-games company BioWare, explained to the audience a number of tactics women could employ to avoid or mitigate misogyny in online video-games, experiences I have come to know as the gender gaps. Her suggestions included gaming with a group women, gaming with 'in real life' (IRL) friends, or hiding one's gender identity. While these suggestions did not impress me, or the majority of the audience, I could

understand her perspective. In fact, I frequently employed her last tactic, hiding my gender identity. My usernames were typically gender neutral (e.g. Cyberindy for ArmA 3), I used my initials rather than my first name whenever possible and I never corrected people when they incorrectly assumed my gender. It has been well documented that many gamers automatically assume other players are male, even if their avatars present as female (Valkyrie 2011:87), which provided an excellent cover for my virtual self in the past. I have had a number of interactions in which I was given male pronouns, despite my character's obviously female body, in my personal gaming time. I have seen comments in the community chat rooms from women and girls correcting pronouns, usually something similar to "<clears throat> ahem. I think you mean SHE." However, I am not one of the gamers who makes such corrections and I am certain many other women have done the same. My desire to avoid trolling has always been greater than my desire to be properly represented as a woman. This behavior is not unique to video-games, but rather reflects the real world behaviors that women adopt when navigating public spaces (Gardner 1994).

Unfortunately, *ArmA* 3 immediately disrupted these tactics. As noted in previous chapters, the game is played using audio communication, which would ultimately 'out' me as a woman given the pitch and sound of my voice. As a result, in all of my communication with the community I used my first name, rather than my initials, almost as a way to warn them of female intrusion into their predominantly male space. This altered my experience in profound ways, many of which can be traced back to models and gaps. In this section I explore a

selection of my own gender gaps and how they related to my overall theme of models and gaps.

The Unit was a fantastic group of gamers, welcoming, patient and forthcoming; however, a few of these gender gaps occurred throughout my time with them. In these instances models were disrupted by my gender. First, my model of how a researcher might interact with her informants was upended:

Oscar: Hey, we've got a random in the chat.

Utah: I think that's an applicant or something...

Omaha: No, she's the researcher from the University of Alberta [I think he

meant Lethbridge...]

Utah: Oh, that's the chick.

Evidently, the members of the Unit did not have the same model as I did. Since this exchange, I have been curious as to how Utah and others would have reacted had they not known my gender or misgendered me.

The above text was the first interaction the Unit had regarding my presence as a researcher and as a "chick." Upon reflection, it was an indication of how some of my interactions with *ArmA* 3 gamers would proceed, though most were pleasant enough. These gaps, I contend, were the result of the predominant model most community members had of *ArmA* 3 being a landscape populated by males, positioning women as outsiders, even if they were entering the space as academics and not gamers. This positioning was illustrated by the discourse found on many of the groups' websites, which implicitly, and perhaps subconsciously, excluded women from their ranks. Notions of 'brotherhood' were common on many 'About Us' pages, where "we are a band of brothers" and "a group of guys" were common descriptors. This discourse of *ArmA* 3 as a 'boy's

game' was reinforced visually by the fact that the avatars in the game were all

Women were members of the community, though they were relatively small in numbers. This was common knowledge within the community, yet an all-male model still managed to be upheld by many community members. Here, it became clear that not everyone had an equal opportunity to contribute to the modeling process, or to encode their ideas into milsim discourse. Here, it is useful to consider Edwin Ardener and Shirley Ardener's Muted Group Theory, which posits that a dominant model "may impede the free expression of alternative models of their world which subdominant groups may possess, and perhaps may even inhibit the very generation of such models" (Ardener 1970:xii). Such a theoretical approach illustrates how women's voices – and in milsim communities, those of their allies – were squeezed out of the mainstream discourse and a seemingly woman-less space was constructed. The dominant discourse of *ArmA 3* as an all-boys-club environment formed a 'template' from which the model was replicated throughout the community (Ardener 1970:156).

However 'muted' or 'inarticulate' these voices may have been – and indeed there were instances when headset mics were literally set to mute – the realities of the women gamers co-existed with the dominant model. When the dominant model was disrupted by a version of reality that included women, the gamers typically responded with surprise. This surprise at stumbling upon a woman was illustrated to me during my introduction to one of the Unit members,

[TeamSpeak notification: User [Tango] entered your channel] [Juno]: Hey Tango.

[Sierra]: Tango, this is Indy, she's doing a college project on the Unit -- [Tango]: Wait. [pause] There's a *girl* in the channel? [Laughter]

Tango seemed genuinely shocked that there was a woman in the TeamSpeak channel and appeared a little uncomfortable with my presence for a brief while. I had obviously disrupted his model of the social reality of the Unit's TeamSpeak channels. This was interesting to me, given that the Unit had one female gamer who had played with them occasionally throughout my research. Perhaps Tango had modified his model to include her, much like the classic kinship anthropologists tweaked their models, but had yet to alter it to fit a reality in which I existed.

Outside of my experiences with the Unit I found that gamers, when presented with this model disrupting reality, often treated women with suspicion. These women gamers experienced what Carol Brooks Gardner (1994:336) calls a *situational disadvantage* during which women experience a variety of uncomfortable and unfavorable experiences, such as catcalls, threats of violence and exclusion, all of which serve to make women feel unwelcome. My research was conducted during the height of the #gamergate controversy, which by many accounts was imbued with misogyny and sexism. Women involved in the gaming and geek communities, either as gamers or journalists, were subjected to attacks on their authenticity as gamers and geeks. Many women were bestowed the pejorative title of 'fake geek girl,' a term that predates #gamergate and their male allies were dismissed as 'social justice warriors' (SJWs) who had adopted the 'femnazi' agenda that sought to ruin their video-games and male spaces. This

was all carried out under the guise of "ethics in journalism" after a number of games were supposedly given inflated game reviews (Dockterman 2014; Hathaway 2014; Lewis 2015). Of course, this could be explained as an issue of gaps between gamer models of what makes a good video-game, but I digress.

This context informed my research and my model of the community. As a result, I was cautious – even hesitant – in initiating conversations with individuals online as more and more stories of journalists, gamers and even academics, were being targeted by a small portion of the gaming community (First Person Scholar 2015).

My model, happily, did not fit the social reality of the *ArmA 3* community and certainly not the Unit. However, I am uncertain as to whether this was due to the social norms of the community, or my status as a researcher. I was predominantly marked as a researcher, rather than as a gamer, in my interactions with community members; in fact, it was often only an afterthought for the participants to ask me what my gaming background was. As a result, I did not encounter the suspicion that is often associated with the title of "gamer girl." My status as a researcher, not a gamer, insulated me from a lot of the sexism experienced by my fellow women gamers. The woman as a researcher did not disrupt their model of milsim gamers or the *ArmA 3* community. Rather, the models disrupted were predominantly my own and perhaps Tango's.

I had only one problematic encounter, which took place during a focus group discussion. In the last half of the discussion I lost control over the trajectory

of the conversation and rather than try to redirect it, I opted to settle into notetaking and observation.

[Sierra]: Indy's pretty quiet, hey?

[Omaha]: Yeah, she's probably just taking a lot of notes.

[Sierra]: You're a really good listener, Indy, and that's a *very* attractive

quality in a woman.

This instance could be understood as a gamer-to-researcher level gender gap. Here, there were two different models for what was acceptable dialogue between genders and between researcher and participant, much like in my initial contact with Utah. Again, I identified the gap as a gender gap as it was unlikely that a male colleague would have been spoken to in such a manner. I had an expectation - a model - of what a researcher-participant conversation would include and when presented with a situation that did not fit this model, I felt uncomfortable and cheated out of my 'rightful' experience as a researcher. Of course, this cheated feeling was ultimately the result of my own issues with modeling of the ethnographic experience, rather than an issue with the participant. I was obviously not the first anthropologist to experience such an encounter with one of her participants.

What was perhaps most useful about the 'good listener' exchange was that one member of the focus group later emailed me to apologize for the exchange, explaining that at times the TeamSpeak channels could begin to resemble a men's locker room. This further illustrated the gendered model that many gamers used to regulate and reproduce the *ArmA 3* community. By virtue of using a real world male space to describe and define the virtual space, it was explicitly established that the community was a male landscape, populated and

used by males. Women did not typically use men's locker rooms, and those that did were met with suspicion and surprise, therefore women did not typically exist in the *ArmA* 3 community in a gender-neutral way.

Exclusion and erasure through modeling

As noted in the section above, gender disrupted many models in the ArmA 3 community and my own mind, which produced gender gaps. My gender gaps occurred when my model of how a research project should unfold was met with unexpected comments pertaining to my gender. These comments were derived from the community's model of ArmA 3 as a male landscape, typically devoid of women and girls. It is also possible that they were the result of a different model of academic research than my own. In order to better understand my experience with gender gaps I determined it would be useful to look more closely at how the gendered model of the community played out when women gamers disrupted the model by virtue of existing in empirical and social realities that were supposedly devoid of women. In this section I explore the community response to the proposition that Bohemia Interactive introduce 'female soldier models' to the game. The reaction clearly identified the model many gamers had regarding women as gamers and as soldiers, as well as the gaps that emerged between reality and the model.

On October 31, 2013 a ticket was submitted to Bohemia Interactive to provide feedback on the game's lack of female soldiers.80 The summary of ticket

⁸⁰ A ticket is a request, usually completed by filling out an online form, made to a video-game or software company that outlines issues encountered in the program. The content of the ticket can

0015747 was simple, "Female soldiers models should be available in the game." In contrast, the description, as of April 21, 2015, read as:

There are no female models in ARMA 3.

Community asks for female soldiers, we are aware of this but ARMA 3 developer team does not have time and human resources for making them at the moment as this means recreating all body worn gear models to fit for female body model and adjust animations or even do a new motion capturing session.

Please avoid making any hate/flame comments, please be constructive and also please keep in mind that this is ARMA 3 feedback tracker, not a forum for ideological discussion.

There was the option within the feedback tracker website to view the ticket's history, which indicated the ticket was submitted by Bohemia Interactive. This was done in order to address multiple tickets that were similar in nature, rather than repeatedly address individual requests (Bohemia Interactive, personal communication, April 30, 2015). As of the time of writing it has been "acknowledged" and remains open for community discussion, with over 200 posts, the newest of which were added in May 2015.81

The "Additional Information" included ten comments selected from the postings, presumably by Bohemia Interactive, to provide an overview of the community's response. These comments centered on themes of (1) potential misuse of female avatars, (2) female models should not be a priority for Bohemia Interactive over other in-game issues, (3) female models should be included in support and medic roles, if not combat roles, and (4) women do not belong on the battlefield or in *ArmA* 3 and would therefore break immersion for players. For the

⁸¹ Author's note: this forum discussion is likely to continue after this project has completed.

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range from bugs (technical issues) to content related requests (female soldiers). These are often maintained on a ticket tracker site, so that the users can see the status of their request and eventually the response from the company.

purpose of this discussion I will focus on comments and models that relate to the last two themes.

These comments and themes, when read in the context of the ticket thread, were clearly the result of gaps in models. These gaps were occurring at two different levels: gamer-to-reality gaps and gamer-to-gamer level gaps. Here, individuals within the same community were arguing over whether or not introducing female soldier models would be realistic and what their inclusion would mean for the accuracy, completeness and authenticity of their experience. I argue that these disagreements were the result of individual gamers possessing different models of reality, models that they were quick to defend and justify lest they be forced to contend with an empirical reality that did not fit their models. These models formed the rules necessary for the magic circle (Huizinga 1980) to come into being and therefore any transgression of this rule (e.g. encountering a female model in an all-male space) would jeopardize the integrity of the circle.

The first group, those who believed that female soldier models were irrelevant, drew on their models of real world militaries that, by their accounts, did not include women. For these gamers, fighting alongside a female avatar would be inaccurate (breaking the rules) and therefore break immersion. Some of the player comments on the subject included:

J2ackson: ...Realistically [women] would join the military and be restricted to non direct combat roles as per most militaries in the world includeing the 2 currently in the game, US and Iran.

Corona2172: ...I see your point about "if you don't like female characters, don't play them". True. All I am saying is that, in the campaign, I do not wish to see female characters in an infantry squad. Let them be support. You wonder why this bothers so many people? Because, we feel like

female characters are being forced into the roles currently held by male characters (yes, this was meant to have a comic tone to it). Seriously though, I do not want it as it is something of an immersion breaker if I see a female in an infantry squad. Plus, I know it was put there to appease a group of people who are only now asking for female models. Why do so many downvote? Because not everyone sees things the same obviously. This is not a problem. See? We are not equal in thinking either.

gibonez: Completely not important. Especially with women not in Combat roles.

Not sure why Social justice warriors are so concerned that a niche military simulator caters to women.

These gamers had developed a model of social reality where women were not in combat roles and should not be in the future. The "Additional Information" section of the ticket included media references that reflected this sentiment, and linked to a number of websites and YouTube videos explaining why women should not be in the real world militaries, and by extension, not in the virtual armies. The first, "Allen West Slams Women in Combat Social Experiment, Suggests They Should Also Join NHL and NBA,"82 included Allen West, a former Republican Congressman and Army veteran, expressing his concern that women could not serve in the same roles as men. The second video, "Navy SEAL Says NO to Women in Combat,"83 put forth the argument that women in these roles would compromise the safety of the United States. The Navy SEAL interviewed argued that the Obama administration was using a faulty Hollywood-derived model of war, one that portrayed war as a Demi Moore film or *Star Wars*. They also

83 Tim Constantine, "Navy Seal Says NO to Women in Combat," accessed April 22, 2015, https://www.youtube.com/watch?v=PzTYyQK-X_Y.

⁸² Michael Savage Show Updates - Media Alerts, "Allen West Slams Women in Combat Social Experiment, Suggests They Should Also Join NHL and NBA," accessed April 22, 2015, https://www.youtube.com/watch?v=N2y9CZ-bkA8.

provided news articles that outlined the fact that some Marine combat jobs may remain closed to women due to physical standards that administrations refuse to lower.⁸⁴ These media pieces, and other similar ones, were employed in the defense of the gamer's male-only rules and their model of what a real world military was like.

These selected second- and third-order models (media) were buttressed by the commenters' distaste for harming women. Such sentiments were employed to protect their model from the fact that *ArmA 3* took place in 2035, a common rebuttal used by pro-female soldier gamers to disrupt the model.

rogerx: Goblinbutt & Echo: I don't enjoy seeing womens' gutts splattered all over the place.

cheeseburger: Apart from that, women dont belong on the Battlefield. I dont want to shoot at females, even if its just a game.

Such comments drew on traditional Western values regarding femininity and perhaps chivalry. As seemax1991 explained, "To be honest, even if it is somehow strange: I have a natural barrier against harming females. Could be that this is an antique way of thinking these days but that is what my parents taught me..." This was yet another rule that became integral to maintaining the magic circle.

Many gamers were not convinced when presented with the evidence of the first group. These gamers drew primarily on examples of real world militaries that already had women in combat roles and the belief that others would include

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⁸⁴ USA Today, "Some Marine combat jobs may remain closed to women," January 29, 2013, accessed April 22, 2015, http://www.usatoday.com/story/news/nation/2013/01/29/marine-corps-women-combat/1873753/.

women by 2035. As Bashkire noted "who's to say that females will not be in front-line units in the future setting of this game?" This group was interesting in that they exposed the American modeling bias of the first group: every article and video posted about women not belonging in the military was American, or pertained to the American military. It was true, that the Marine Corps would likely never allow women into their ranks due to physical limitations, but not all gamers were looking to model themselves after American military forces. Those who argued for the introduction of female models into *ArmA* 3 drew on models that were more often than not derived from non-American real world militaries and cited articles from other sources.

Renegade: I would like to see this implemented in the game, seeing how BLUFOR [ArmA 3 fictional faction] is NATO, and here in Canada we have female infantry soldiers, it seems lame to leave them out.

Echo: nmdanny: Don't be so narrow minded. There are several countries that allow women in the same roles as men in the military. I know you said "most", but here in Sweden women would not necessarily by such a uncommon view in infantry combat. Even if there are less women than men in infantry teams, that is not a reason to NOT include them.

Ipmikeboy: Oh wait the game takes place in 2030-something right?

I can see NATO having women for sure, the FIA, maybe the AAF, but NOT the CSAT.85

Goblinbutt: http://www.msn.com/en-gb/news/uknews/women-soldiers-to-serve-in-front-line-combat-units/ar-BBgoTTW?pfr=1 [note: article about the UK allowing women to serve in infantry positions]

To the 33%: There goes your frontline troops argument

-

⁸⁵ Ipmikeboy later defended the "not CSAT" comment by stating they were based off of a real world group that had antiquated ideas about women

It was made clear that for these gamers, the realism of game was threatened by the gap produced in the absence of female soldier models. An integral aspect of their model was missing, which threatened the integrity of their magic circle.

These gamers, on both sides of the subject, used second- and third-order models to inform their own models of reality, as the modders and role-players did in chapters 5 and 6. As there were differences in each gamer's source models, and in their lived experiences, their own models were naturally divergent as well. What was interesting was that each group made claims to their model's accuracy and authenticity by providing examples of real world militaries that matched their models. Additionally, the pro-female soldier models group claimed their models would be more complete, as SGTIce noted, "Worlds not complete without female soldiers, god wills it." In contrast, those campaigning to keep female soldiers models out of the game argued it was already complete without them as simp1y explained, "The problem isn't that there aren't female models. The game is absolutely fine without females. Females neither add nor detract from the overall quality of the game."

These comments illustrated a gap between gamers, one that was the result of different modeling practices, which I contend fell along geographical and political lines. Gamers from countries with female infantry soldiers, or a knowledge of such countries, seemed far keener to include them. However, those relying on an American model, particularly a Marine Corps model, were adamant that female soldier models would break immersion and threaten the realism

trifecta, as well as make them feel cheated in a devious way by the "Social Justice Warriors" of the *ArmA 3* community.

These comments also illustrated the gap between reality and the game, as perceived by those gamers who argued for female soldier models. Once again, their model of the complex messiness of reality was not met by the virtual reality provided by Bohemia Interactive, producing as real-to-virtual gap. As with other gaps explored in this thesis, the community turned to modding to address this gap in the game. The following section explores the use of gamer-made mods that filled the gender-gap in *ArmA* 3.

Discussion: "Do community mods bridge gaps or muddle models?"

Hey,

here's an addon / Modders Resource I put together. I'm sure most people have noticed the lack of any women models in A3 so this package might fill the gap.

It's an extremely early version (!), please have a look at the readme. I won't continue this - mostly because of time reasons - but so it doesn't vanish I'm releasing it as a modders resource / partly playable.

The addon version contains 3 pre-set units and an example mission with added high-pitched speakers (adding the voices addon-wise doesn't seem to work as the voice is not used).

Have fun 986

The above quote is the introduction to the "Female Soldiers 0.1 Alpha / Modders Resource" by Icewindo. It explicitly stated that there was a gap in the *ArmA* 3

⁸⁶ Icewindo, comment on "Female Soldiers 0.1 Alpha / Modders Resource," BIStudios, September 2, 2013, accessed April 22, 2015, http://forums.bistudio.com/showthread.php?162997-Female-Soldiers-0-1-Alpha-Modders-Resource, emphasis added.

landscape caused by the lack of female models. In order to address this gap, lcewindo produced a resource for community modders to build a bridge with.



Figure 20: Screenshot of female soldier mod (*source: zenger, http://arma.at.ua/Zenger/News_1/363/q1.jpg*).

The resource was predominantly met with approval from the community, which again explicitly noted the gaps. Comments such as "Thanks God at last some one did it. I wish I could enhance this but I have too much to learn yet. Thank you so much for filling this ArmA series giant gap" and "this is cool, I like that you are filling a gap in the armaverse... females in arma combat roles = gap filled" indicated that the community members in the thread were functioning under a model of reality that included women in the military and the *ArmA 3* community. The occasional criticism arose, though the spoil-sport (Huizinga 1980:11) was quickly identified and shunned from the thread through mockery. Sam75 was free to relocate to another community that shared the same rules.

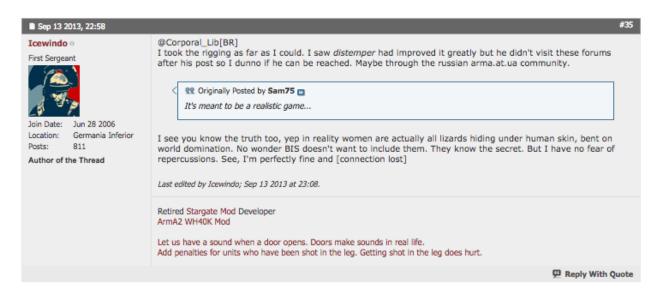


Figure 21: Screenshot of discussion thread in which the spoil-sport challenges the rules of the magic circle (*source: http://forums.bistudio.com/showthread.php?162997-Female-Soldiers-0-1-Alpha-Modders-Resource/page4*).

Despite community additions and "rigging," the mod did not become fully developed or incorporated into the game by many gamers. However, one of the commenters directed members interested in building a better bridge to a second female solider model mod, "FEMAL3"⁸⁷ by zeealex, who self-identified as a woman with feminist-leaning ideologies. As with the first mod, the community was welcoming and supportive of zeealex's endeavors. As with the first mod, any spoil-sport were ejected from the conversation.

However, with this mod there were several interesting comments regarding the way the models looked with regards to aspects of the realism trifecta. As mentioned in previous chapters, accuracy, completeness and authenticity were all required aspects for *ArmA 3* and its content to be deemed realistic. The community discussing the mod had already determined that the

⁸⁷ zeealex, "FEMAL3," BIStudios, July 8, 2014, accessed April 22, 2015, http://forums.bistudio.com/showthread.php?180099-FEMAL3-Alpha-1-Crude.

female soldier mods were necessary for the virtual military experience to reflect those of the real world, thus there was little to no conversation regarding the necessity of the mod or completeness.

fullerpj: Sweet and congratulations. We can finally make some female pilots.

Laqueesha: Great job! Good to see modders making up for the devs. Keep up the good work:)

3P0X1: Totally didn't think this mod was going to be released anytime soon, but damn glad it is! Congrats on releasing a very much needed mod for the community.

Kilroy the nerd: Nice work. These should've been in the game from day one!

Instead, within this discussion forum, issues of accuracy and authenticity unfolded, illustrating a need to bring the mods in line with reality. In short, the community sought to fix the muddles in the mods so that they fit their understanding of reality. I contend that while some of the critiques leveled at the mod were legitimately concerned with the accuracy and authenticity of the mods, other criticisms were made in order to reinforce the model of *ArmA 3* as a male space. Many of these criticisms, and what I consider implicit attempts at the erasure of women, revolved around makeup.

steamtex: Do women normally wear lipstick into combat?

Kiory: Honestly, not digging the glamour, doesn't make much sense to give them lipstick, also from what I could tell, there are no imperfections on their faces, everybody has a blemish or two, especially people who are in a warzone and have no need for such things as makeup.

zeealex: thanks for this feedback guys, it's been taken into account as a major issue, realism is priority number 2, priority number 1 is getting the working, I know it sounds really strange considering I'm a girl myself, but i'm not really capable of differentiating between what's made up too much

and what's not, around my area, a lot of people are orange with fake tan, and are way over made up, the textures were quite toned down to what i was used to, so it's quite hard to tell what's too made up to you guys.

Kiory later provided an extensive list of "natural looking" women in the military and in video-games for zeealex to use as examples. The post was heralded as an "awesome and informative post." Others pointed out that *ArmA 3* did not take place in the garrison, where grooming standards were believed to be more stringent. As a result, some argued that light makeup would be allowed in certain situations and provided photos as evidence. eggbeast went so far as to claim that "all the chicks i served with wore make-up. dunno if that helps lol." In the end zeealex agreed to strip the models down to mascara at most.

Following discussions of makeup, the conversation turned towards a discussion of the bodies of the models, including positioning of shoulders, hands and faces. Some commenters critiqued the eyelids of the Asian model, while others discussed the "beefy" shoulders. As Anrio noted, "It seems shoulders look excessively beefy for a fragile woman:)" which was echoed by dostunuz with "Too beefy yes, i hope in future you would make them look like an actual female." However, such comments were dismissed by Corporal_Lib[BR], who noted that "the shoulders are perfectly on proportion - these guys never had a drawing classes to really know - and for bloody sake, it's a female SOLDIER (she needs to be [b]eefier), she's not a Barbie!" and Malcom86 who argued that the bodies were "still too thin... try to point to a more athletic one female body or making uniforms more loose. They looks a little bit too tight."

The comments seemed to point to a discrepancy, or a gap, between gamer models. One group of commenters wanted a model that did not look "male" with beefy shoulders, while the others were concerned with the models looking to "feminine" and not "soldier" enough. Clearly, the commenters were bringing their own models of what women and soldiers really look like.

What was of interest here was the ways in which commenters and modders chose to negotiate the perceived gap in ArmA 3. In this instance, all efforts were made to ensure that the female soldiers were as accurate and authentic as possible as a means of establishing realism. However, in other instances of social modeling (e.g. role-playing ranks) it was not necessary or even desired to make the model as accurate as possible. It seemed that the gamers were willing to adopt the philosophy expressed by Utah and Neptune; this was ArmA 3, not real life, and as a result things would be different. Following this model of milsim in ArmA 3, why not allow gender-gaps to exist with regards to makeup and body shape? After all, if it is "just a game" why not allow avatars that were clearly marked as women (e.g. through makeup)? What was it about this gap that inspired dozens of comments on lipstick, blush and eyeshadow? As 3P0X1 noted, "Anyone else find it funny that we would have a serious reason to discuss the right amount of makeup in a mil sim game?" Furthermore, why was this degree of "serious" commenting and criticism not leveled against the enemy identity mods, which I have argued were flawed in their accuracy and authenticity (see chapter 6)?

Could it be that this stripping down of the models protected the implicitly all-male magic, despite group claims to the contrary? When the female soldiers had their full gear, which would be normal in most combat situations, it was difficult to identify them as obviously female. The vests and bulky gear obscured their breasts and curves, giving them only a slightly more feminine shape in the end. The helmets hid typically feminine looking hair and covered many of the features that made the models identifiable as women.⁸⁸ I contend that this representation of women soldiers would be unlikely to break the immersion of those gamers against the inclusion of women in *ArmA 3* combat positions.

While I, as a woman and a gamer, was pleased to see a representation of women that was not hyper-sexualized (see Downs and Smith 2010; Jansz and Martis 2007), I could not help but feel as if the quest for realism through accuracy and authenticity ultimately resulted in the erasure of women in *ArmA 3*. As the gamer, I would know that I was playing as a woman, but would my fellow gamers? Unless I spoke, which many women chose not to do in *ArmA 3*, would the mod actually challenge the all-male models of *ArmA 3* and real world militaries? Would it effectively fill the gap if no one realized it was being filled because I was not *performing* my gender in the ways it is expected?

Following Judith Butler's (Butler 2006) line of argument that gender is the product of various 'acts,' that it is a process and performance, I contend that there is little opportunity to act out gender as it is collectively understood in a landscape such as *ArmA 3*'s. Furthermore, if gamers did know that I was a

⁸⁸ asuseroako, "Femal3 Beta 1 / ArmA 3," November 4, 2014, accessed April 23, 2015, https://www.youtube.com/watch?v=7HJ_ullMomw.

woman, what would the appropriate model of a woman gamer be? As indicated above, the community had difficulty in determining what a woman looked like, let alone how she should behave. This is scenario makes performing gender difficult, as gender is not merely the product of individual choices, but is influenced by cultural codes (Butler 1988:526). I am uncertain as to what code of conduct I would need to perform – if one such code even exists – in order to integrate into the society (Abu-Lughod 1999:11). Though perhaps the relative absence of a code was further proof of how masculine *ArmA 3* was, that there were so few women inhabiting the space that rules regarding women's behavior did not yet exist, save for those regarding the navigation of a situational disadvantage.

As a result, though the mod was meant to negotiate and bridge the gap in the models, I am unconvinced that it would effectively challenge the muddles in some gamers' models (e.g. no women in combat positions in real world militaries or in the *ArmA 3* community) or addresses the gaps identified in others (e.g. women are necessary for the realism trifecta). I make this claim well aware that my model of what women really look like could be interfering with my assessment of the mod, much as zeealex's influenced her use of makeup in the initial stages of the mod. As such, I wish only to highlight an area for future research into gender gaps in modding.

Despite my initial reservations towards including a discussion of gender in this project, it has been made clear to me that perceptions and negotiations of gender in *ArmA* 3, as well as in my own interactions with the gamers, are intrinsically tied to issues of modeling and gaps. Models of online social realities

structured how some participants engaged with me as a researcher, as well as how gamers interacted when confronted with women gamers. Similarly, models, or perceptions of what real world militaries were really like, shaped how community members reacted to the request to include female soldiers.

While I would not go so far as to say that the muddles in models were the only reason for the sexism in the *ArmA* 3 community – as one would not blame the problematic representations of subjects by classic anthropologists solely on modeling issues – they did appear to be a factor in many of the issues. This was exacerbated when the models were used as rules for producing and maintaining the magic circle. As a result, it has been made clear that all the aspects of milsim culture that I encountered could be explored through a focus on modeling and gaps – even gender.

Chapter 8: Reflections, or, looking back on process and significance

Gamers used modeling and simulation processes in their *ArmA 3* gaming

practices to achieve a desired experience. I found that what was considered a

"desirable" or acceptable experience differed from group to group and this was

made clear in their modeling and simulation processes. The modeling processes

were how they made sense of the complex messiness of actual war and military

experiences as they understood them, as well as how they intended to replicate
the messiness and experience online. Simulation processes, however, were how
they *enacted* these models and it included their actions both in- and out-of-game.

These processes were driven by the realism trifecta: accuracy, completeness and authenticity. The models that they brought to *ArmA* 3 from the so-called real world informed how they would behave in-game and therefore what they needed to be realistic. Acting as para-ethnographers (Holmes and Marcus 2005a), the gamers collected and curated their own body of knowledge, of models, either individually or collectively, of warfare, including the social relations involved. This in turn produced models, often in the form of training plans and field manuals, which were understood to be realistic representations of war. This process was markedly similar to what anthropologists and social scientists do in that they were also modeling their perception and observations of society and social relations.

The trifecta was of the utmost importance in modding. The gamers strove to provide the community with game modifications that would increase the accuracy, completeness and authenticity of their gameplay by bringing their

simulation capabilities in line with their models of reality. This was also the case for role-playing practice, which clearly illustrated the desire to *enact* the models they had constructed in-and out-of-game. Here, a realistic combat experience was deemed incomplete without simulating the proper behaviours. To role-play was to act out another's role, which was perhaps the most salient of the simulations, given it is by default an *action*, rather than an internal model or abstraction. In other words, it is putting a model of the world into practice.

Perhaps more important than the realism trifecta, was the need to overcome emerging gaps in the gameplay. Certain aspects of social reality simply could not be replicated online, which robbed the gameplay of true realism (e.g. lethality and bodily harm). This left the gamers with desire to negotiate this real-to-virtual gap. This could have been achieved through a "no respawn" rule, as the Unit chose to do, or it could be accepted and worked into the model, as the casual role-players illustrated. In addition, gaps emerged between the game, as produced by Bohemia Interactive, and what the gamers had expected in terms of content and mechanics. These gaps were negotiated through modding practices, which relied heavily on modeling practices based on what they knew of real world militaries, conflicts and geographies.

However, modeling and simulation processes pointed to a new level of gaps, one that existed between individual gamers and their groups. Extended role-playing (exR-P) practices proved to be a divisive topic within the community as gamers determined that the gaps between their models and those of others were irreconcilable. While the models of the exR-P groups may have been

realistic, some found that they enlarged the gaps between real and virtual life by continually pointing out that they were not *real* soldiers and *ArmA 3* was not *real* life. This often resulted in the so-called "spoil-sport" (Huizinga 1980) choosing to leave the community to form or join a group with similar modeling and simulation processes. Furthermore, gaps emerged between gamers when their models of what the real world looked like differed, due to their own real world geographies and political experiences. This was evidenced in the conflict that broke out over the suggestion that Bohemia Interactive include women soldiers in the game. Much of the conflict revolved around which model was the true model of the world and this exposed an American military model bias within the community.

With each gap that was seemingly mitigated, a dozen more emerged, which in turn had to be negotiated or accepted by the gamers. The cycle of negotiation and production appeared endless. In part, this was due to the evershifting nature of social reality. As a gamer or group's understanding of social reality shifted, the models they used to guide their gaming practices need to change in tandem, or else new gaps would emerge. They were able to reconcile the fact that some gaps were inevitable, that at times their models would not fit neatly over this evolving social reality. For them, they knew that this was not what war was like. It was *ArmA* 3 and they would have to do things differently.

This *process* of modeling and negotiating gaps is arguably where the significance of this project lies. I contend that researchers have much to learn from *ArmA* 3 gamers and how they produce, modify and reproduce their models. As I have noted throughout, I too used models as a means of understanding the

gamers and their practices. This, I contend, is at the core of most social science research, and in particular, anthropological research. As such, I will conclude by way of addressing the layers of significance around this process that were identified through my research and how they impact the gamers and game studies, cyborg and digital anthropology, as well as anthropology and the social sciences in general.

Gamers and Game Studies

My research has arguably addressed a number of gaps in the Game Studies literature by focusing on an under-researched, yet popular, video game franchise. Prior to this research only a handful of scholars had touched on the franchise, mostly focusing on its predecessor, the *Operation Flashpoint* franchise. Furthermore, my use of multi-site ethnographic research has allowed me to capture a broad snapshot of what the *ArmA 3* community was like. Following the hyper-link highways from site to site provided rich, qualitative data that helped articulate the experience and *process* of milsim gaming. Furthermore, it contributed to a fledgling body of literature on modding and gamer-created content (agency), as well as to the extensive collection of research on role-playing. My use of Huizinga's (1980) magic circle as a means of explaining the role-playing spectrum provides new insight into how gamers self-regulate their communities and their diversity.

The research also adds to the growing body of literature that seeks to humanize and make knowable the milsim gamer who is often stereotyped as

violent and out of touch with reality. Since Franz Boas (1858-1942), there is a growing movement within anthropology that contends anthropologists should advocate for the people they study (Hale 2006). I contend that Game Studies scholars should also take up this call, especially in the wake of #GamerGate. Despite the fact that many of the gamers are white, middle class males, the moral panic surrounding their gaming practices can marginalize them within North American society. As such, it is important to not only provide an outlet for their voices, but also attend to accurate, authentic, complete and thoughtful models. This was particularly evident to me when discussing their problematic models of people from the Middle East. How I modeled gamers through my academic work needed to include a consideration of representation, following Said (1979), and attentiveness to marginalization. As I argued throughout this thesis, the process of representation by scholars has led to the silencing of voices throughout history due to unquestioned notions of gender, ethnicity and nationality. This process in turn produced problematic stereotypes – the Other – and models that did not fit with reality. As games studies scholars, we also need to be attentive to the ways in which our representations have the power to silence voices and perpetuate stereotypes related to gamers. It is my hope that projects like this, which fostered respectful and beneficial dialogue, will in turn build greater, enduring rapport, opening up communities for future research without the fear of backlash from either side (see chapters 3 and 7 on gender concerns).

Cyborg and Digital Anthropology

Throughout my research, I struggled with the questions "is this really anthropology?" and "what makes this different from sociology?" This struggle was ultimately rooted in my own models of what anthropology was supposed to look like. I was fresh out of an undergraduate education that focused on anthropologists who "went away" as Malinowski and Boas did. I had read accounts such as Napoleon Chagnon's (2013), in which the lone anthropologist sailed up an uncharted Amazonian river, lined with Yanomamo men, armed with spears. Sociologists on the other hand "stayed here" and studied a demographic that many of the gamers fit into: white, middle class North Americans and Europeans.

With cyborg anthropology, my digital self certainly went away and traveled down hundreds of hyper-link highways and rivers of data, but my physical self never left my office. Furthermore, I was not constantly immersed in the culture for an extended period of time, as I did not "move in" with a local family who would teach me the ins and outs of the culture. Instead I logged in and out of the culture on a daily basis.

In order to reconcile the gaps that emerged between my models and my reality, I needed to reconsider my initial models of digital cultures. I was subconsciously operating under the model of the gamer as permanently immersed in the culture, as always "jacked-in" (Gibson 1986). This "jacked-in" concept is problematic in that it romanticizes the way individuals engage with the Internet and digital technologies, while also denying them the complexity of their offline lives. It mistakenly posits that the virtual and digital are becoming

conflated, that they are "fusing" into one another and the boundaries between the two are becoming blurred (Boellstorff 2012a:39). It reduces them only to their gaming practices and digital lives, which produces a model that does not fit with their reality. The reality was, of course, that these gamers logged in and out just as I did and they had families, jobs and other interests (Boellstorff 2012b:124-6). To ignore the cyborg nature of the gamers was to Other them, to further stereotype them as obsessive, addicted and out of touch with reality. This is one of the reasons I propose the adoption of cyborg instead of digital anthropology — it is a constant reminder that the cultures we study are more than just what we see online and that we must attend to those offline contexts as well. While scholars such as Boellstorff (2012a) contend that "digital" can be salvaged if we "rethink" what we mean by the word, I argue that there is no reason to redefine digital to encompass online and offline worlds and boundaries when "cyborg" by its very nature does so already (Downey 1995:7; Haraway 1991).

While the Unit did construct a cyber-village of sorts through TeamSpeak and their blog, it was often left unoccupied. Therefore, even if I *could* permanently take up residence in their cyber-village, such an approach would not suit the culture I was studying. As a result, I developed a new model, one that conceptualized milsim gamers as diverse individuals who were a part of milsim culture, but who also left the online community on a regular basis to attend to their biological lives. My "Malinowski model" of anthropological research would not work in an online world and attempting to negotiate the gaps between it and

reality was futile. In order to study and understand this culture, I also needed to re-conceptualize anthropological research.

Rather than understanding my work as an anthropologist through this "going away" trope, I began to consider it through fieldwork, or rather, by asking, "Once Napoleon Chagnon arrived in a Yanomamo camp, what did he actually do while he was there?" The answer, of course, was what I did throughout my project. I observed gamers for hours on end as the practiced their training drills and carried out missions, noting their speech patterns, social hierarchies, social relations and points of tension. I learned what was culturally valuable to the gamers, as well as what humorous and upsetting. I looked through their photo albums, which told highly curated stories, and read their After Action Reports that outlined their battle histories. I conducted multiple interviews, focus groups and surveys, all of which gave me great insight into how the society functioned and reproduced itself.

What I believe is so striking about this project is how the gap between my experience and Chagnon's held potential for creativity in our interactions with informants and in our methods. As I noted in previous chapters, my interviews were all conducted through TeamSpeak, which allowed for multi-layered communication. Despite the suggestion that face-to-face interviews provide a richer source of data than TeamSpeak (e.g. body language), this form of communication also facilitated text-based chats at various levels (e.g. group and individual text-messages). Furthermore, this culture functioned without knowing one another's body language ever, so why should my research attempt to include

something that does not exist in the culture itself? By reconsidering my models of reality, I produced a stronger model for my fieldwork, which turned out to be anthropological research after all.

This reflection on *my* process has made it clear that cyborg and digital anthropologists need to reconsider their models when entering the field. To assume that anthropological research must look like that of Malinowski, Mead or Chagnon does a disservice to the anthropologist and the culture being studied. If we, as cyborg anthropologists, wish to avoid "feeling cheated in some devious way," we must adapt our models to suit our field and be willing to constantly reshape them while we are "away."

Anthropology and the Social Sciences

Perhaps the most significant aspect of this research is how the para-ethnographic work of the gamers mirrored how academia, and the real world in general, understand the complex messiness of social and cultural reality. Thus, their paraethnographic negotiation of gaps and models can lead to significant insights into the work of social scientists.

This research speaks to the epistemology and methodology of anthropology and the social sciences in general, in that we are also constructing models in our research. As Clifford Geertz (2000b) notes, society is understood by constructing models *of* reality and models *for* reality. As the gamers had models *of* what war was really like, they also had models *for* what it would look like in *ArmA* 3. Moreover, this is how anthropologists and academics conduct their research. We produce models of reality to make what we study knowable for

the rest of society; we attempt to model the society and social relations by highlighting those relations we believe to be significant. At times our models are obvious, like synoptic charts or kinship diagrams which *look* like models. Other times they are less so, like the ethnographies that we write, which often have narratives and details that can obscure the fact that it is actually a model of the society. They are both abstractions and both have made choices as to what to highlight and what to discard. As a result, Schneider's critique of modeling practices, despite being leveled against anthropologists working in previous centuries with obvious models, is still relevant to researchers today. This was made particularly evident the moment I stepped into the field and was confronted with a spectrum of gamers – many of which did not fit my model.

My experience in the gaps calls attention to anthropological interpretations and the limits of the models we use throughout the process of research and analysis. This is not to say that anthropology is incapable of producing knowledge about a given culture, rather, I argue that if we attend to the gaps throughout our research, our data and analyses will be stronger. Thus, instead of spending "too much time, effort, and energy [sic] in mending the model, in protecting it from new data, in insuring its survival against attacks" (Schneider 2011:486), we should embrace the gaps and negotiate them when we can. Moreover, viewing modeling as a process, as the gamers did through their modding and role-playing practices, further strengthens our contributions to the field. By doing so, I contend, that there is greater potential for diversity in data collection and analysis. Someone with a different initial model could approach the milsim community and

find new insights that I did not. Additionally, they could choose to negotiate their gaps in different ways, which would in turn affect their methods and data. Perhaps they would choose to find the gamers in real life and carry out their participant-observation in the same room, which would address the "anthropologist gap" in a markedly different way. Allowing for diversity in modeling processes – and acknowledging that it is a process – would produce more data than a strict adherence to one particular static model.

There is expansive potential in the gaps for the discipline's methodology as well. There is much discussion and praise surrounding multi-sited ethnographies in the discipline today (Marcus 1995; Matsutake Worlds Research Group 2009) and I propose a new layer be added to the approach, one that is both instantaneous and simultaneous. A cyborg approach to the study of culture allowed me to view multiple sites of social gathering, rituals and conversations instantly and at the same time. Aided by digital recording programs, I was also able to revisit them whenever I needed to recall a particular detail. It was the gap in the model of what constituted "anthropology" to me that provided me the room to be creative and produce something novel and exciting, in fact it was the desire to negotiate this gap that drove me to find a layer of meaning that would compensate for the gaps I could not negotiate. Just as the gamers attempted to compensate for the lack of lethality, my approach to the field compensated for my inability to go "away." In both instances the gap enabled us to do something more, something new. The Unit was right, when they told me "this isn't what war is like" and perhaps my research was not what traditional research is like – but I

have learned that overcoming all the gaps is not only impossible, it is not the point.

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Appendix 1

List of Games Referenced

America's Army: Rise of a Soldier

2005. Secret Level, U.S. Army and Ubisoft.

America's Army: Special Forces

2002. Secret Level, U.S. Army and Ubisoft.

ArmA: Combat Operations

2006. Bohemia Interactive.

ArmA 2

2009. Bohemia Interactive.

ArmA 3

2013. Bohemia Interactive.

Battlezone

1980. Atari.

Call of Duty

2003. Infinity Ward.Commando

1985. Capcom.

Conflict: Desert Storm

2002. Pivotal Games.

Conflict: Desert Storm

2003. Pivotal Games.

Conflict: Vietnam

2004. Pivotal Games.

Conflict: Global Terror

2005. Pivotal Games.

Delta Force

1999. NovaLogic.

Doom II

1994. id Software.

Marine Doom

1996. U.S. Army and id Software.

Medal of Honor: Frontline

2002. DreamWorks Interactive.

Metal Slug

1996. Nazca Corporation.

Operation Flashpoint: Cold War Crisis

2001. Bohemia Interactive Studios.Rainbow Six

1998. Redstorm Entertainment.

Spec Ops: The Line

2012. Yager Development.

Appendix 2

Survey

- 1. How long have you been playing ArmA
- 2. What form of ArmA do you play (i.e. campaigns, multiplayer, DayZ, Altis Life, etc.)
- 3. What drew you to ArmA
- 4. If you had to describe ArmA to someone who had never played a military themed video game before, what would you tell them?
- 5. Do you play with a group? Why?
- 6. In general, what makes a game realistic for you?
- 7. Compared to other military or combat themed video games, do you think ArmA is a realistic game? Why?
- 8. If you use them, do mods help make the game more realistic, or are there other reasons for using them?
- 9. Does the way you play the game add to the realism or immersion? Why?
- 10. What do you think of the audio and graphics in the game?
- 11. What sort of enemies do you encounter in the game?
- 12. What do you think of the death and wound effects?
- 13. What is your opinion on the weapons? How do they compare to other similar games?
- 14. What do you think of the new stamina/fatigue system? Has it changed your play style?
- 15. Is there anything in the game, or player behaviour, that strikes you as ridiculous or unrealistic?
- 16. Does ArmA do anything that strikes you as really good in terms of simulating a military experience?
- 17. Do you participate in ArmA related activities or conversations outside of the game? If so, can you describe them and where they take place?

Appendix 3 Notes on Data

Interviews, structured (3)

Interviews, unstructured (3)

Focus group (1)

Personal communications (2)

Neptune (email; September 20, October 1 and 19, 2014)
Re: the use of mods by the Unit as well as Neptune's opinion on extended roleplaying.

Bohemia Interactive (email; April 27 and 30, 2015)

Re: female soldier mods

Twitter

Conversations with multiple users who pointed me to new sites of social gathering. Conversations lasted between two and 15 messages each and were a combination of "@ mentions" and direct messages.

Weekly searches of the hashtags: #ArmA; #ArmA3; #VideoGames; #AmericasArmy; #milsim; hundreds of tweets, photos and people were returned in this search.

Survey (1)

25 Incomplete responses

55 Complete responses

Survey was released on Reddit September 10, 2014 and closed on September 15, 2014 after 80 responses were obtained. "Completed" responses included those surveys with answers for every questions, while "Incomplete" included those with 1-99% of the answers completed. As such, even incomplete surveys were used in analysis.

Autoethnography, observations

01/07/2015 - 31/08/2015

Over 40 hours were dedicated to my own personal "playthrough" of the game. I completed the Virtual Reality section of the Bootcamp. I also completed Act 1 and part of Act 2, at which point my skill level impeded my ability to complete Act 2 and 3. This was resolved by watching over 20 hours of walkthrough footage of three different gamers completing the Acts.

Autoethnography, visual data (screenshots)

Over 50 screenshots were taken during autoethnographic work. When using Fraps they were taken every 30 seconds, though some were deliberately taken

using the manual screenshot function. These included photos of the weaponry, fatigues, vehicles and wound/blood effects. These screenshots were used as visual aids in the thesis to help the reader understand what the game looked like, as well as reminders of the gameplay events.

Autoethnographic, visual data (gameplay footage)

Approximately 20 Hours of gameplay footage was recorded, along with my audiorecorded notes for transcription and analysis. Not all autoethnographic gameplay was recorded as much was repetitive (e.g. repeating levels and training).

Participant-observation, Twitch

Twitch-based observations and conversations began on June 3, 2014 and concluded on October 18, 2014. During this period weekly mission observations were carried out on Mondays and Wednesdays, as well as most Saturdays and Sundays. These observations varied in length, but were generally around two to three hours in length. These missions were recorded using Fraps for later analysis and transcription.

Twitch streamers also curated their own archives, which were available to the public. Dozens of these videos were also viewed for analysis.

Observations, YouTube

YouTube provided raw footage of gameplay as well as curated videos. Many gamers produced training videos and "how-to" guides, which were used for content and discourse analysis. In particular dslyecxi's videos were of particular interest and watched in their entirety. In total over 100 videos were viewed for this project, with lengths ranging from a couple minutes to over an hour.

Discourse analysis, Reddit

Over 500 threads were reviewed and a number of themes emerged, including: bugs and mechanical issues in the game; humorous moments in a recent session; training videos; new mods to test; screenshots and video montages.

Many threads had dozens of comments from individuals discussing the original post.

Discourse analysis, ArmaHolic Forums

Over a dozen threads, with hundreds of comments, were reviewed regarding modding. In particular, those related to gender, the Middle East and identity modifications were analyzed. Each thread directed users to the mirror thread on the Bohemia Interactive (BI) Studios Forums, which were also analyzed for content and discourse.

Content analysis, visual data

Dozens of photos were collected for analysis, and a number more were available online on group sites and Reddit. Images related to the identity, gender and

Middle Eastern mods in particular were collected as evidence to support my claims.

Content analysis, community websites

Over 100 sites were reviewed for information on gameplay styles and rhetoric. Blogs, websites and wikis were analyzed. Using www.armaclans.com, over 50 different group sites were visited, 10 on a recurring basis. These sites provided information on the group's doctrine, training methods, position on roleplaying and hierarchies. These sites also contained videos, photos and After Action Reports.