The Reality Code: Interpreting Aggregate Larp Rules as Code that Runs on Humans

Popular abstract: Aggregate larp rules are a type of code that runs on humans. Code can be thought of as a linguistic form that is both declarative and imperative; it is both truth and command (Buswell 2009). In aggregate larp, elements of the game's *diegesis* are rendered codic, or playable, allowing players a degree of autonomy from game staff. Through the methodologies of Critical Code Studies (Marino 2006)—the reading of code (code as text) and the annotation of code (code as manuscript)—the interpretation of larp rules as "code that runs on humans" takes form, allowing us to read game encounters as programs, players and staff as programmers, rulebooks as programming languages, and rule structures as platforms. In larp code, a DBMS-style relational model lends the code depth and specificity. Aggregate larp rules descend from tabletop RPGs, which emerged in tandem with the workplace proliferation of DBMS in the 1970s. With larp code and computer code, the social practice of standardization plays a role in shaping the code. With both types of code we also see the emergence of proprietary code. Social apparatuses (Althusser 1970) ensure that larp code maintains its integrity as truth-command. The repeated reinforcement of social apparatuses lead players to experience a process of rules reification, leading the larp code to eventually take on a type of psychological reality. This phenomenon may have a neurological origin. The study of larp code provides a framework to approach "real world" reified power structures such as "gender," "race," and "capital."

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In autumn of 2003, I traveled eighty miles through the evergreen forests of Western Washington to a summer camp that had been overtaken for the weekend by dozens of people who called themselves live-action role-players, or "larpers." Specifically, this was the Seattle Chapter of the *New England Role Playing Organization* (NERO), now known as *Alliance Larp*. It was a sight to behold—the rubber elf ears, the "magic circle" of Christmas lights, the cafeteria they called "the tavern" where players lingered between battles with duct-tape-wrapped tubes they called "swords." Needless to say, I was a bit confused by the aesthetics.

Since 1996, I had taken part in gatherings such as cosplay, Renaissance Faires, SCA events, and historical reenactment—spaces in which people used lavish costumes and settings to help us imagine ourselves into the worlds we had learned to long for while watching television and playing video games. Mark Duffett theorizes that media fans rely upon a shared inner territory of emotional certainty, or "knowing field," to shape the phenomenology of participation within our fannish communities (Duffett 2013). I had grown accustomed to fan communities that used aesthetics to evoke our shared "knowing field." At this larp event, however, the phenomenology of participation was not centered around simulating the clothing or mannerisms of a time period or media genre. These larpers were using a very different methodology to approach the ideological. They had created an augmented sociality, a space in which people shouted commands at each other, and if executed properly, those commands were obeyed unwaveringly as if they were part of the universe's laws. One larper might pelt another with a beanbag while shouting "I call forth a Dragon's Breath!" to which the victim would respond by flopping onto the forest floor, to which the victim's friend might react by tapping her on the shoulder with a beanbag and saying "I call upon the Earth to Cure Wounds," to which the victim jumps up and rejoins the fray. To facilitate interactions like this, players must memorize a lengthy book of rules. The rules provide the framework to allow a myriad of "un-real" or undesirable activities to become a fluid part of the game's sociality without people having to actually enact them—activities like casting love spells, being maimed, and forging magic weapons. The rules provide a logistical model of command and consequence, allowing larpers to swiftly resolve the occurrence of "un-real" events without any debate over "what just happened," and to do so with relative autonomy from the game's staff.

As I delved more deeply into the rules, first as a player then as a staff member, I came to understand that the rules were something far more complex than they appeared: that aggregate larp rules are a type of code that runs on humans.

Code is a linguistic form that is both declarative and imperative; it is simultaneously truth and command (Buswell 2009). It is a specific form of language in which the declaration of a statement simultaneously makes it true. The statement "I do" during a marriage ceremony may be thought of as a type of code. Codic languages, such as larp code and computer

languages, are quite rare and emerge only in situations with a specific type of captive audience.

Many varieties of larp have emerged globally in last three decades, falling under loose categories such as *campaign larp*, *freeform larp*, *secrets and powers larp*, and *pervasive larp*. The one consistent thing about this mode of leisure labor is that players interact with and within a story, and strive to physically enact as much of that story as is feasible/desirable. The story in a larp—which is to say, the series of events happening in the imaginary reality that players interact with and co-create as they play—can be called the game's *diegesis* (Montola 2013). In aggregate larps such as *Alliance*, elements of the *diegesis* have been rendered codic, or playable. In this type of larp, players use a *diegetic* language—the signs of which include beanbags, specific phrases, foam-covered tubes, codic slips of paper, and smears of face paint—to simultaneously declare the game's *diegesis* while exacting their will upon it. The *diegesis* includes all things that are said to be "happening in the game world" such as a character blasting someone with a glowing ball of ice magic, or someone ingesting a love potion and becoming twitterpated with the next character they see. The *diegesis* does not include the things used to represent those things: the beanbag and phrase "30 elemental ice" or the slip of paper representing the Love Potion code. Many types of larp do not have a codic system to allow players to deploy elements of the game's *diegesis*, and thus rely on an authorial (rather than aggregate) power structure to resolve the game's "un-real" events (Steele 2016b). Rather than relying on code, authorial larps offer models of *diegetic* deployment rooted in authorship, evoking a play dynamic rooted performativity and subjection (Butler 1998). While *most* aggregate larps also contain authorial encounters with game staff (for example, a staff member declaring, "fire is now raining from the sky," which then becomes *diegetic* fact), *all* aggregate larps contain a codic rule structure that facilitates a decentralized (Baran 1964) deployment of elements of the game's *diegesis*.

Through the methodologies of Critical Code Studies (Marino 2006, 2016)—the reading of code (code as text) and the annotation of code (code as manuscript)—the interpretation of larp rules as code that runs on humans takes form, allowing us to read game encounters as programs, players and staff as programmers, rulebooks as programming languages, and rule structures as platforms. Interpreting aggregate larp rules as code facilitates cross-larp, cross-platform, and cross-disciplinary study of larp code, which can be thought of as both as a means to achieve an interactive collective *diegesis*, and also as an art form containing subtle flourishes unique to the code. The human coding that happens in larp is improvisational and takes place in real time, akin to a live coding musical performance, only rather than shaping sound, these larp coders shape an invisible mutually agreed upon reality. A video then of this type of coding should not be considered the program, but rather is a record of a program being run in the past. To facilitate a closer reading of larp code, I have annotated a troll battle that was coded in the *Alliance Larp* rule set around 2009 (Steele 2016a), as this is the system and version I am most fluent in and thus most prepared to annotate.

At a cursory glance we see that, with the exception of the Spell Shield, the *diegetic* effect of each of these codic commands is pending: players do not know if their code took effect until a few seconds later because other code exists that may allow the target to nullify or redirect the code. This creates moments of lag between the codic and *diegetic* aspects of the game.

In my annotation, I have underlined the subsystems of the code. Looking at the first line of code, we see that the seemingly small gesture of uttering the phrase "5 Silver" while hitting someone with a foam weapon evokes at least five separate rule subsystems: (1) how and when to utter the phrase; (2) how and where to swing the weapon; (3) how to ensure that a weapon has been correctly constructed and received approval from game authorities; (4) what it means for something to be a valid target; and (5) a "Body Point" subsystem that is used to determine various factors, such as whether a player can continue to stand up. Both the deployer and the receiver must have precise knowledge of all of these subsystems for this line of code to operate. Other code in this system is not as simple, as can be seen with the multistep process that underlies the deployment of a single Spell Shield.

Another way to discuss the rule subsets in this human coding language is to say that this type of language relies upon a type of relational meaning, mirroring the practice of relational DBMS, or Data Base Management Systems, in which *attributes* are sub-categorized under *entities* (Codd 1970). Perhaps it is no surprise that larp rules descend from those of tabletop RPGs (a similar type of story-based play in which the *diegesis* is likewise rendered codic, but tabletops lack the requirement for physical enactment), and that tabletop RPGs developed in conjunction with the workforce proliferation of DBMS in the 1970s. Humans are in a reflexive relationship without our technology; as we interact with our machines, our machines likewise interact with and influence our culture (Hayles 1999).

Figure 1: Larp Code Annotation, *Alliance Larp* troll battle (Steele 2016a)

Name of Program: Troll Battle
Authors: Alliance LARP Seattle Chapter players and staff
Year Performed: c. 2009
Programming Language: The Alliance LARP Rule Set
Requisite Hardware: Humans, foam weapons, beanbags, items of codic documentation
Video Record Available at: youtu.be/Tb-lgzSJg_s

"5 Silver" + weapon blow
Pending Diegetic Effect: Someone swings a sliver-coated blade and wounds someone else!
Codic Effect: Uttering this phrase while landing a successful blow with a qualifying foam-covered weapon causes a qualifying target to lose Body Points.

"6 Normal" + weapon blow
Pending Diegetic Effect: Someone swings a blade and wounds someone else!
Codic Effect: Uttering this phrase while landing a successful blow with a qualifying foam-covered weapon causes a qualifying target to lose Body Points.

"I Curse you with Weakness" + beanbag hit
Pending Diegetic Effect: A glowing ball of magic flies from someone's fingertips and hits someone else, rendering the victim exhausted and unable to fight.
Codic Effect: Uttering this phrase while landing a successful hit with a qualifying beanbag renders a qualifying target unable to fight for a specified amount of time. Following the battle, documentation should be provided to the target of this code to show that the certification for the one-time use of this code was properly obtained.

"Spell Shield"
Diegetic Effect: A spell hits a person, and a glowing magical shield appears around their body for a moment, deflects the attack, then vanishes.
Codic Effect: Prior to this moment, a qualifying player has uttered the phrase "I grant you a Spell Shield" while pressing a qualifying beanbag to a qualifying body part of the speaker and also has given them the appropriate documentation to maintain that this action has occurred. Now, by uttering the phrase "spell shield" the speaker renders a Magic/Spell-Qualifier that has successfully hit them within a qualifying timeframe to have had no effect. Following the battle, the player who deployed this code should give the documentation that shows they are certified for its one-time use to the player whose code was blocked.

"I Summon a Force to Disarm your Shield" + beanbag hit
Pending Diegetic Effect: A glowing ball of magic flies from someone's fingertips and hits someone else, blasting their shield away from them!
Codic Effect: Uttering this phrase while landing a successful hit with a qualifying beanbag forces a qualifying target to drop their shield and not touch it for a specified amount of time.

Neurologists might argue that the DBMS-style of relating to larp code only occurs at the superficial level (i.e., this model does not necessarily mirror the biological structure of the brain), but those who dabble in computer science might refute that DBMS likewise don't have anything to do with a computer's hardware: they are rather an abstraction that allows humans to interact with computers on our terms, not theirs. The use of DBMS-style relational systems in our interactions with larp code lets us fluidly organize and clarify what we mean with each deployment of the code, allowing us to set parameters that increase safety and mitigate out-of-game disadvantages. Relational DBMS gave us the Software Revolution and the RPG revolution as well.

As players develop fluency in the game's code, they increase their agency within the game's sociality. The rules can therefore then be thought of as a mode of power deployment; they are a means through which to make your will more effective than/upon others. As you develop fluency in the rules, the code

gradually loses its novelty and rather becomes a tool to create experiences. A seasoned larper designates her Character Stats like a banker, which is to say, like a software engineer. While a financial instrument interacts with and lends shape to the market, and whereas a line of code interacts with and lends shape to the behavior of a computer, Character Stats lend shape to the *diegesis* of the game. A player's Character Stats Sheet might be thought of as an artist's palate, but rather than paint, it contains the specific code they are able to deploy during gameplay. Like the creative constraints of the Oulipo writers, Character Stats provide limits to the code an individual larper can draw from during a game, facilitating the development of strategy and teamwork, while sometimes laying the groundwork for an undesirable type of hierarchy rooted in the accumulation of codic abilities.

To the larp designer, genre often plays a major role in influencing their choice over which elements of the game's sociality to render codic, and genre also influences the types of signifiers to be used as signs for those truth-commands. In a Tolkien-esque action genre larp like *Alliance*, a bulk of the truth-commands have been written to signify the things of epic fantasy battle, while the signs designated to represent those truth-commands include hand-held items and projectiles that are swung or thrown in gestures resembling combat. Alternatively, in drama genre larps such as *Vampire: The Masquerade* (Rein*Hagen 2000), a bulk of the rules are dedicated to rendering supernatural and social abilities codic, with the signs that signify them often resembling dramatic theatre gestures, evoking codic deployment that takes on a theatrical tempo.

The social practice of code standardization is the process by which one or more individuals dictate how code is to operate. The form this practice takes is ultimately going to affect the code's usability. The *Alliance LARP* standardization process parallels that of the C programming language in the 1980s, a process spanning many years during which representatives of that languages' community of speakers discussed and re-crafted the code based on their perception of its usage (Buswell 2010), a nebulous process which led to bulky code that can take new speakers years to gain fluency in. As the third generation of computer and larp coders emerged in the mid-2000s, we saw the rise of code designed for simplicity and rapid acquisition. In software during this time, design paradigms like "convention over configuration" guided the creation of Ruby on Rails, a platform that dramatically reduces the number of decisions a developer must make, laying the foundation for the Web 2.0 and the rise of social media. In larp, we saw design paradigms like "separate the core rules from setting," which led to the creation of dramatically shorter rulebooks that facilitate faster language acquisition and more fluid experiences deploying the game code, as explained by *Devia* developer Bryan Gregory in a phone conversation on May 2, 2016.

Propriety code—in which social models facilitate a system of leasing the code for profit—has emerged in both larp code and computer code. For example, in the latest edition of the *Alliance Rulebook*, we find a passage that resembles the end-user licensing agreements that accompany proprietary software (see Figure 2). Within our economic system, code itself becomes a type of commodity to be leased to others, allowing them to use it to program while it continues to generate profit for those invested in its creation and maintenance.

Since they are dealing with inanimate objects, computer programmers have an easy time keeping the truth-commands of their code veridical. Those who manipulate the market depend upon others (hopefully) to create and uphold the state and legal apparatuses that ensure that the codic tools of finance hold their form. When we run code on humans in larp, we must build and reinforce our own social systems to ensure that the code doesn't break down. Larpers have developed a variety of social apparatuses (Althusser 1970) to reproduce the conditions of play. These social apparatuses include Ideological Game Apparatuses (IGAs), which entail the player-to-player positive reinforcement of the rules, and Repressive Game Apparatuses (RGAs), the disciplinary actions that occur out-of-game, often via referees or "Rules Marshals," when a failure to follow the rules has occurred. The IGAs might be thought of as the culture surrounding the rules, both during game play and also when interacting with the code outside of the game, such as a group of larpers hanging out in a coffee shop talking about the modifications they plan to make to their Character Sheets. RGAs include those awkward twenty minutes when the game has been paused for a Rules Marshall to adjudicate a contested bit of code deployment. The ultimate punishment for breaking the rules is exclusion, either for a period of time or permanently from the game. When a game's rules are *diegetic* code, breaking them threatens the integrity of the story and the world of the game.

As seasoned larpers become fluent in their game's codic language, they come to understand and interpret the language's signs as story-elements occurring in real time, which is to say, the signs become

reified. Reification is a process by which social constructs come to be mistaken for facts of nature (Lukács 1923). The reification of larp code is upheld through the repeated social reinforcement of IGAs and RGAs. Seasoned players can tell you about the uncanny moment when the rules finally "clicked"—the beanbag starts to *feels like* a fireball, the game money takes on a kind of *weight*. You know it shouldn't be, but while the game is running, it is. Perhaps this psychological sensation can be explained by the evolutionary history of the human brain. Our species' capacity for language and tool making are believed to have developed simultaneously in Broca's Area of the brain (Uomini and Meyer 2013) through a gene-culture co-evolutionary dynamic (Morgan et al. 2014). Perhaps in reification, this neurological ubiquity between language and tool making creates a type of psychological optical illusion, a "toolification" of socially-reinforced fantasies that have been codified as language, lending them that canny sense of being "real."

In the world outside of the game, fantasies such as "capital," "gender," and "race" also undergo the social process of reification, allowing slips of paper to be mistaken for congealed labor, arbitrary assessments of one's genitals at birth to be mistaken for consent to a pre-determined set of lifelong activities, and persistent split-second assessments of the amount of melatonin in one's skin and/or the shape of features limited to their face to evoke a fantasy that someone is either an equal or needs to be punished/saved/appropriated/excluded. The process of reifying these "real world" fantasies is no different than that which makes a beanbag into a fireball in larp, but they are lacking a "game off" mechanism. Reified social values contain their limits within their origin, leading to ad-hoc systems of infinitely expanding modes of reiterating the reified without contributing any new value outside of the reification system's own self-containment. Could it be that larp represents a new cultural-evolutionary advancement: reification with an "off" switch? *The fireball gets to become a beanbag again.* Or was there always already an off-switch, and this is all really about power? Histories of oppression are being actively being held in place, eclipsed by the smooth surface of "race" "capital" and "gender." *Does the fireball only get to become a beanbag again because no one has power invested in keeping it that way?*

Returning to Duffett, we can turn the analysis of fandom back towards the "real world" and say that the phenomenology of participation in the "reality" of Late Capitalism is shaped by a shared "knowing field" rooted in oppressive fantasies like "race," "capital" and "gender." *Does the fireball only get to become a beanbag again because no one has power invested in keeping it that way?* Returning to Duffett, we can turn the analysis of fandom back towards the "real world" and say that the phenomenology of participation in the "reality" of Late Capitalism is shaped by a shared "knowing field" rooted in oppressive fantasies like "race," "capital," and "gender." Drawing from the Catarealist art movement, which posits itself as "below and against the real" (Trigger 2015), we find larp code operating within a type of revolutionary potentiality, as below and apart from what is "real." Larp's revolutionary potentiality does not, however, prevent the reified social fantasies of the out-of-game world from creeping into a larp's *deigesis*. Many larp rule systems, for example, contain "Racial Abilities" that reinforce out-of-game essentialist fantasies about "race." In *Alliance*, if a character has green skin, it changes the way their character sheet works, no matter their backstory may be. This creates a type of *race that is more than race*—the fallacy of bio-essentializing assumptions about culture has been written into the code that governs the universe of the game, making it impossible for the society within the game to ever dismantle "race." Should the rules be changed then, perhaps splitting base personhood and culture into separate subsystems? Or perhaps the term "race" could be replaced with something more apt in larp rulebooks, like "species"? Or perhaps such things should be done away with? These are questions for the next generation of larp designers as they contemplate their craft.

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BIO

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