

Exploring E-sports: A Case Study of Gameplay in Counter-strike

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ABSTRACT

In this paper, a case study of Counter-strike is presented in which cognitive, cultural, economical, and technological aspects of people's gameplay activities are discussed. Most attention is given to Counter-strike as an e-sport – competitive gameplay which borrows forms from traditional sports. Also, methodological and theoretical issues related to the study are discussed, including issues of player-centered approaches and issues related to the cross-disciplinarity of the study, which borrows perspectives from cognitive science as well as cultural studies

Author Keywords

Counter-strike, Gameplay, E-sports, Cultural studies, Cognition

INTRODUCTION

The first-person shooter game *Counter-strike* (CS) [9] is one of the most popular and successful games in the world. Seven years after its 2000 release, a very long time for a computer game, it still captures and holds players' interest. According to Steam¹, there are over 158.000 CS servers on the Internet and over 280.000 players were simultaneously playing CS when this article was written.²

In the wake of its success, Counter-strike has created a distinct and unique culture surrounding it, including the players themselves, professional teams³ and their fans, e-sports organizations and leagues, and enthusiastic spectators. A few teams and individual players have also gained

¹ <http://www.steampowered.com>

² This number includes Counter-strike, Counter-Strike: Source, and Counter-Strike: Condition Zero.

³ Teams in CS are usually called *clans* by the players themselves. We will use these two terms interchangeably.

widespread international fame and recognition and make a living by playing CS.

The popularity and success of the game and the surrounding culture make CS an interesting if challenging research object [14,23,27,32]. What makes playing CS such an engaging and meaningful activity to the participants? How has the scene in CS evolved and what drives its development? These questions are particularly interesting given the possibility for Counter-strike players to turn a (mostly individual) leisure activity, something that is done for fun, into semi- professional work with an emphasis on team play. In parallel with the increasing popularity and professionalism of e-sports, gameplay in CS has also undergone changes that impose new requirements on players. The cooperative nature of playing CS combined with the complexity of the CS culture/scene makes it a particularly inviting setting for questions that go beyond game design and the performance of individual players. Few if any other computer games show comparable interest from players, e-sport organizations and sponsors.

A growing number of scholars in the field of game studies acknowledge the need for player-centered approaches [e.g., 11]. Considering the almost exclusive focus on formalistic approaches in earlier years, this development is a positive step toward understanding *actual* gamers' *actual* activities. Nevertheless, a fruitful player-centered approach remains elusive. Should we concern ourselves with the actual activity of playing a game, with the ongoing activities on the screen/in the game, with people's feelings and subjective experiences as they play, or with why they are active in communities discussing these games? Although some approaches focus on the relationship between game design and player experience [11,21,24], we propose that *gameplay is situated* and takes place in a context created and shaped by many actors and interest groups.

Kline et al. [19] provide a framework that goes beyond the designer/player dichotomy and also includes a description of cultural forces at work. Their “interactive gaming experience” is the result of *three circuits of interactivity* – marketing, technology and culture – that are closely interrelated (see figure 1 below). In each circuit, three positions relating to production, commodity and consumption are presented as important objects of study. The same position in different circuits can sometimes refer to the same actor (e.g. *gamers* as consumers, players or users).

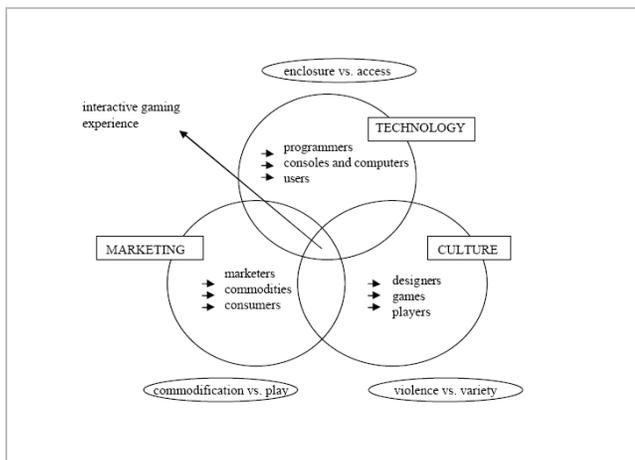


Figure 1: Three circuits of interactivity [19]

Their model will be used throughout the paper as an analytical tool but it is however not necessarily a good example of the sought-after “player-centered approach”. They emphasize production and commodity over consumption, and, gameplay, or “the interactive gaming experience” is not primarily understood as players’ interactions with the game but rather the relationship between players’ actions and cultural, economical and technological forces underlying game design, people’s perceptions of the game etc. We will here use empirical material mainly concerning the players (users, consumers) in an attempt to develop a player-centered approach to digital games.

Aim

We address theoretical and methodological issues of studying activities of gameplay. Our intention is to illustrate these issues through results from an empirical study of Counter-strike players. We will below (1) explore our approach and the perspectives taken on gameplay and (2) discuss gameplay in Counter-strike in terms of how players’ individual activities, the game’s design and interface and the culture and business surrounding CS are interrelated. The rich description based on interviews, video recordings and studies of web-forums is accompanied by an analysis that goes beyond establishing simple cause-effect relationships and instead highlights the complex web of relations that constitutes the scene as a whole.

PERSPECTIVE(S) ON GAMEPLAY

Kline et al’s model [19] provides the basis for our discussion of gameplay. Our aim is to capture the overlap/interplay between the three circuits in gameplay and to focus on the player and his activities. The theories and methods discussed here are primarily rooted in cultural studies and cognitive science. *Cultural studies* is an interdisciplinary research area that combines many different disciplines such as philosophy, media theory, sociology and cultural anthropology. Research in this area is mainly concerned with studying cultural phenomena in people’s everyday lives. This, of course, also includes people’s everyday (computer) gaming activities [7,12]. *Cognitive science* concerns the nature of the human mind, including higher cognitive processes such as decision-making and learning. Research is highly interdisciplinary, drawing from disciplines such as psychology, neuroscience, linguistics, philosophy, computer science and biology. Based on research in these fields, we can study gameplay with the players in focus without sidestepping technological, economical, and cultural aspects of people’s playing activities.

From a methodological standpoint there are two ways of studying and understanding gameplay. On the one hand there is the *handling of the game*, i.e. the actual (physical and motorical) activity of playing the game. On the other hand, we have *player’s meaning-making activities*, i.e. their understanding of the game in terms of how the game is to be played, their role in the game and the culture around the game [cf. 30]. This is an analytical distinction since in practice both elements are closely related; the handling of the game has an impact on players’ understanding of the game and vice versa. For instance, our study shows that players who become better at handling Counter-Strike start taking playing activities more seriously which leads to more practice and yet higher levels of proficiency.

The idea of both elements being closely related is strongly supported by theories of embodied and situated cognition (EC/SC). According to these theories sensori-motor activity is inextricably intertwined with higher cognitive processes such as learning, reasoning, problem solving and decision-making, i.e. *handling* and *meaning-making* are closely related. Moreover, *gameplay is a situated social-cultural activity, spanning brain, body, and game environment* [25]. It is distributed and coordinated across player, game interface, game world and game structure [1] as well as other objects and people. People are very proficient in using the material and social environment and act in for their own benefit [8,16] and the same goes for playing computer games; the line between virtual game world and real life is not as clear-cut as often believed.

Indeed, computer gameplay is not only the result of players’ immediate actions in the game but is also of other factors [c.f. the idea of the three circuits of interactivity]; it is shaped and influenced by cultural contexts and tools and

takes place within a web of social and cultural practices [3,20]. In the case of e-sports, for example, gameplay is structured also by fans, e-sports organizations and leagues in a process of increasing professionalization that can be compared with similar processes in other sports (e.g. the Olympics and world championships). It is a sometimes painful process where broadcast companies and remote audiences can make demands on the game that are at odds with the wishes of the athletes themselves.

GAMEPLAY IN COUNTER-STRIKE

Thinking of gameplay as a socio-cultural practice has significant implications for how to approach it empirically. We have largely been inspired by cognitive ethnography, distributed cognition [16] and critical discourse analysis [4], allowing us to analyze both aspects of *handling* the game and players' *meaning-making* activities. To understand gameplay we need to pay attention to more aspects than those implied in a "gameplay, game world, and game structure" categorization [1]. In the case of CS, these include community sites, e-sports leagues and organizations as well as players' cultural backgrounds, i.e. gameplay in CS consists of and arises from different stakeholders' multi-layered practices (see figure 2).

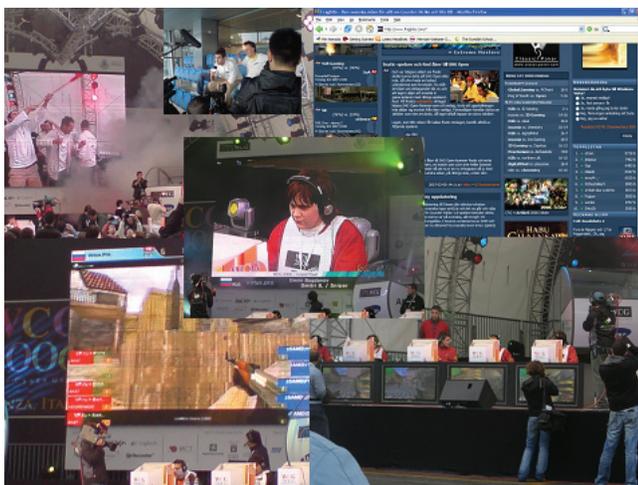


Figure 2: Gameplay in Counter-strike can be viewed as a patchwork quilt arising from different stakeholders' practices

Method and setting

Our material was primarily collected at the 2007 *World Cyber Games* (www.worldcybergames.com) finals in Monza, Italy. It is based on interviews with 34 clan members between 19 and 25 years. They came from nine countries on three continents (Australia, Asia, and Europe) and were among the very best in their respective countries. Since the quality of the CS scenes in different countries varies a lot, the players had varying hopes and expectations on their participation in the tournament and their overall

future in gaming. The interviews were carried out in a semi-structured manner; an interview guide was used, but we also took the chance to pose follow-up questions whenever something especially interesting caught our attention. We also have a video recording of a match (semi-finals). We have furthermore visited fan and community sites and talked to CS players in Internet cafés in Germany and Sweden. We also *played* Counter-Strike since first-hand experiences are helpful (or perhaps necessary to understand and interpret players' experiences [cf. 1]).

We looked at several national and international forums and community-sites, but the main focus was on one particular site. Fragbite (www.fragbite.se), a Swedish Counter-strike news and community site that reports from the national and international CS-scene was chosen for a more thorough study. Fragbite hosts a lively community and is generally considered to be the best CS-site in Sweden.⁴ As part of our study we have performed a critical discourse analysis [4] of how the professional organizations and the multi-national companies' interest in the scene is valued and used by the community members in their understanding of what the game means to them (to be published).

Analysis and results

We used a variety of "affinity diagrams" [6] to analyze the interviews. The interviews were transcribed on the level of interesting "sound bites" or "factoids" and each was written down on a post-it note. This resulted in around one note per minute of interview and resulted in around 500 post-it notes. These notes were moved around and clustered into emergent themes during a two-day whole-wall exercise. Beyond categories in accordance with the interest areas underlying our questions, we also found many unexpected categories and connections between different interviews

Further analysis of the interview material and video recordings resulted in several different perspectives on Counter-strike gameplay. Below we discuss important elements shaping and influencing gameplay in CS on four analytical levels; (1) player actions during play, (2) interactions within and between teams, (3) players and fans on the Internet, and (4) the Counter-strike gaming scene.

1) Player actions during play

Gameplay in Counter-strike changes over time; at first the game is played for fun (often on public servers), but after some time it is taken more seriously. A prerequisite for transforming it from a leisure activity to (semi) professional play is the design of the game; it affords competitive play by rewarding fast reflexes, good manual dexterity and excellent hand-eye co-ordination. As one player said, "CS is the first game I played and the competitiveness kept me

⁴ We in fact also met and talked with the four writers and photographers that Fragbite sent to Monza, Italy exclusively to cover the World Cyber Games competition.

in it". The development of these skills is closely related to players' identities as (semi) professional players and is usually accompanied by the decision or invitation to join a clan (or create one). This requires new levels of skills and understanding from players and the better they become at handling the game, the more seriously they take their playing activities.

The emphasis thus changes from *individual* to *team play* and skills such as good communication and the ability to adapt to changes in the clan's line-up and the opposing clan's strategies and moves become increasingly important. Players come to view themselves not only as individual players but also as team players who know that everything they do can also have an impact on the other members of the team. Competing in local tournaments starts to shift the activity from leisure to (semi) professional work and once players have won their first tournament they want more. As a player pointed out, "When we won we thought that we could achieve more and we started to play more".

When a player joins a clan their individual playing style has to match the clan's style as a whole. Players take on different roles with respect to the clan's line-up and the agreed-upon strategies and tactics. Players' individual styles are nonetheless also a result of their style and activities from before they joined the clan and a player who has played a lot on public servers will probably have a more aggressive playing style⁵.

Another factor shaping gameplay in CS is the *equipment*. For instance, good headsets allow players to locate the direction of explosions in the game. Choice of equipment is also a matter of personal preferences where players need to feel comfortable with their equipment. Some players go further and develop emotions for their equipment (perhaps also with a hint of "magical thinking"); one player had used the same mouse pad for three years, bringing it with him to every match. Most professional players, however, don't put too much faith into the connection between equipment and performance. They instead believe that good individual skills and skill sets required for successful team play are much more important than equipment; some hinted that part of what it means to be a *professional* player is to be able to perform well with any (combination of) equipment.

However, as video recordings and interviews revealed, configuration of the equipment does have an important impact on gameplay in CS. This has little to do with players' beliefs or feelings; instead, it has to do with the isomorphism between how the physical environment is configured in relation to the in-game environment. The typical line-up at a tournament consists of five players sitting in a row next to each other. Players can thus make use of "neighbors" screens as well as their own; instead of

asking for others' in-game locations and actions, they can simply glance sideways. This is also the reason why the virtual line-up of a clan inside the game to large extent mirrors the line-up in front of the computer and how in-game roles and positions to some extent become visible in the clan's *physical* line-up. This clearly shows how players escape their virtual confines and take *cognitive* advantage of the surrounding game environment (see further below).

2) Interactions within and between teams

It is easy to believe that handling the game is largely the result of good individual skills; however, interviews with players tell us a somewhat different story of how the handling of the game and players' meaning-making activities are closely interrelated. The most important source of knowledge for new players is more experienced players, i.e. learning takes place in a community of practice [20] where new players gradually advance from "newbie" status to greater levels of expertise and more central positions on the scene. In addition to playing with and learning from better players on public servers, inexperienced players also learn from watching recorded matches between experienced teams [27]. National and international E-sports events like WCG are naturally also considered good opportunities to learn from better players.

The social nature of learning in CS becomes particularly evident when players join a *team*; new levels of communication and strategic thinking skills become necessary and "available" only through sustained interaction within and between teams. One informant said, "The strategies you use depend on which team you play against". This indicates a close mutual learning-teaching relationship between player, team and opponents; players are both "learners" and "teachers" during gameplay. A CS team is not one big "social mesh" though; social interaction within and between teams are crucial for the development of players' skills but players also need to achieve a level of proficiency and independence as individual players. As a player pointed out, "you must be able to play independently, you cannot ask the others all the time". This seems to be attained the longer a person plays CS, i.e. interaction and exchanges with other players are necessary to develop a greater level of independence as a player. The close (learning-teaching) relationship between players in a clan can nonetheless also become a source of potential emotional conflict; players who want to become successful on the CS scene must at some point leave their friends and old team behind to join a better team. It is unusual that the whole team and each player becomes better at the same pace and this kind of conflict (between friendship and "career") could be seen as part of the prize to be paid for the professionalization of the CS scene.

With the increasing professionalization of the CS scene, one would think that teams spent *a lot* of time practicing. Surprisingly, this is not the case – apart from the teams who

⁵ Players on public servers usually play alone and the focus is therefore more on individual skills such as aiming and shooting.

think they have a reasonable chance of winning prize money. Practice usually consists of 1) playing against other teams and 2) discussing strategies and tactics within the team. Most teams we talked to practice just enough to qualify to different events – and might not practice at all if there aren't any serious opponents in their country (see further below).

When they practice, most teams prefer to meet *physically* and play matches against other teams over the Internet. Only teams whose members live far from each other and/or cannot afford to travel practice online. Practice is also related to the infrastructure in a country. Ping-rate or network lag is a crucial factor in CS and teams that don't have access to fast interoperable Internet connections (e.g. India) are practically barred from playing against other teams online and are thus severely limited in their choices of "sparring partners". A team that has limited opportunities to practice against other teams, or limited opportunities to meet physically and practice together will tend to develop more slowly no matter how good the team might be *theoretically*. This illustrates a "network effect" of sorts in terms of close learning-teaching relationship within and between teams as well as the importance of factors such as broadband penetration and telecommunications infrastructure.

3) *Players and fans on the Internet*

As with other popular computer games, there are countless community-sites dedicated to CS. The fact that the game is also played as a competitive sport does however make a difference. Some CS clan sites can best be described as fan-sites, other sites are dedicated to presenting results and interviews with players and yet others offer the possibility of gambling (!). Fragbite is the most popular Swedish news and community-site and it reaches a large part of the Swedish CS-scene. Fragbite started 2002 and its archives mirrors the evolution of the Swedish and international CS-scene. In our analysis here we focus on 1) discussions at Fragbite about how CS should be played, 2) how the activity of playing is valued and understood by community members and 3) how these ideas, opinions and values form discursive identities which players can draw upon in their attempts of making sense of their own gaming activities.

Only part of our results is presented here, a full analysis will be published (in Swedish) elsewhere [18]. The two dominant discourses of identity in the community forum are those of *professionalism* and *athleticism*. The professional identity is expressed in the concern of the community to come off as *serious*, *dedicated* and *mature* with a clear *goal* and *vision*: to turn CS into an accepted sport with chances for practitioners to make a living from playing the game. Appeal to *excellence*, *physical fitness*, *endurance*, *practice* and *hard work* constitutes the basis for a discourse of athleticism. These two discourses might or might not be dominant on the CS-scene as a whole; we call attention to them here because they are important to the overall

evolution and professionalization of CS and because they tie in with other parts of the CS scene analyzed here. Discourses of professionalism and athleticism furthermore constitute powerful counter-discourses to prevailing opinions about the dangers of computer games. An example of the latter is the description in one of Sweden's biggest newspapers of the computer festival *Dreamhack* (www.dreamhack.se) as a "computer game convent but also a ghost fair, for the image here offered is a horrifying vision of the future of humanity: cybernetic and withered, rushing and snorting across an artificial savanna" [28].

The discourses of professionalism and sport transform the activity of playing a computer game into work rather than play. This connection has been noted also by others [12,29,31] but rarely in the highly positive manner offered by these player-created discourses. The connection between work and play is here used to invert the image of the "horrifying vision" above into something that borrows both from the bureaucrat and the entrepreneur; planned and diligent work combined with expansive visions for the future. The common image of the couch potato "wearing thick, unflattering spectacles, overweight, pale, pimply skin, poor fashion sense [bodies] soft, not hard, from too much physical inactivity and junk food" [22, p.102] is countered by creating a connection between traditional sports, health, physical fitness and e-sports.

There is resonance between these discourses (from the Swedish CS scene) and the WCG. As apart from most other tournaments, WCG invites only one team from every nation – mimicking the Olympics. This is the reason why some teams practice little and settle for qualifying to the event (see above). Something all are well aware of is that the skills, experiences, economical conditions and opportunities for practicing vary widely between teams. Every team knows how far *their* country has come in the process of professionalizing e-sports and steps needed to be taken by players, sponsors, organizations, broadcasters and even governments. Some realize that they will never be able to play professionally in their home country and dream about moving abroad to pursue a career as a professional player. Players also recognize the need to sell themselves as players and teams to sponsors and to work hard to show off their professionalism. While most players claim that recognition from other players, e.g. winning tournaments, is the most valued form of recognition, having a professional web page and cultivating a public image for your team is also recognized as important means to reach out to fans and potential sponsors. One informant even suggested that keeping a strict diet is important as sponsors want their teams to look good and be in good physical shape.

4) *The gaming scene: players, organizations, sponsors and tournaments*

We have so far discussed individual players, teams and a CS community website and now step back to look at the CS-scene as such. To use the term scene is in itself problematic [15]; *where* is this scene located for example

and *who* can be said to be a part of it? Acknowledging these problems we will however use a tentative definition where scene refers to those persons involved in the activities around the game and those places where these activities takes place. We here make a distinction between *national* scenes and the *global* CS scene. The sources we draw from are interviews and impressions from the World Cyber Games as well as various websites (e.g. community-sites, leagues, tournaments and sponsors' sites).

There are several competing organizations that would like to call their tournament the world championship of computer games. ESWC, Electronic Sports World Cup (eswc.com) is the European candidate⁶, The Cyberathlete Professional League (thecpl.com) and The World Series of Video Games (thewsvg.com) are based in North America and the World Cyber Games (worldcybergames.com) is run by a South Korean company. While these are the biggest actors on the scene, there are several other organizers of international tournaments and many more that organize national or local tournaments.

Top teams on the global scene often practice against teams from other countries so as to get the best opponents. It is rare with national scenes that can support several teams competing on the highest international levels. The best players in a country often get recruited into the two or three top teams in that country. Since low ping-rate is crucial when playing against other teams over the Internet, teams tend to practice within the same region, e.g. the Nordic countries and the Baltic States, eastern and middle Europe, South-East Asia etc. Players reported that this leads to the adoption of different playing styles in different regions and the Australian team claimed that there were even distinct playing styles in different parts of Australia. The teams with the most experience from the international scene instead claimed that there were no discernible differences any longer. It seems that among the teams that constantly play against each other in successive tournament around the world, such differences disappear, whereas the teams that rarely play in international tournaments retain a "local color".

To get recognition on the global (and national) scene it is not enough to be a top CS-player; you also have to play in a good team that wins tournaments. Top players ignore online play on public servers and this attitude is found also in Fragbite's discussion forum. The proliferation of LAN-tournaments has made those the established way of separating the wheat from the chaff.

⁶ "The ESWC was designed by a French team, which since 1999 has been specialising in the organisation of video games tournaments and in the development of technologies linked to network games. An independent private company [...] manages the entire ESWC, its licensing rights throughout the world, its financing through sponsorship, its major events and its television broadcasting." (<http://eswc.com/world/main.php?h=2&c=about>)

While the clan – consisting of five or six players with no support in terms of administrative personnel or management – is the most typical form of organizing players, the number of e-sport organizations is steadily increasing. As in other sports, these are run as professional for-profit organizations but they will remain few in comparison to the number of amateur teams and their proliferation will be restricted by the number of sponsors and the amount of money on the scene. E-sport organizations employ the players and have other employees and/or volunteers who take care of the details surrounding sponsors, website, press contacts and competitions. For interesting parallels between the professionalization of computer gaming and the open source movement, see Görling's "Open source athletes" [13].

At present, sponsors are first and foremost hardware companies selling equipment used for playing games such as Intel, Samsung, Microsoft, AMD and ATI. Companies sponsoring e-sport teams or events find it a natural way to reach out to potential consumers (just as in traditional sports). In order to be of interest to sponsors, e-sports have had to adopt new technologies as well as a "business-friendly" attitude (see below).

The formation of an audience is another aspect of the CS-scene. While the majority participating on the scene are players or ex-players, there are those who follow the scene without first-hand knowledge of playing CS. While small in numbers, the emergence of games broadcasting and coverage of games in traditional media might eventually attract larger audiences. There does not yet seem to exist a universally accepted format for broadcasting or commentating matches which makes it difficult for the uninitiated to understand what is happening on the screen.

Lastly let's not forget Valve, the company that owns and manages the intellectual property rights to Counter-Strike. After CS was independently developed as a mod for the game *Half-Life*, it was picked up by Valve and released as an official expansion in 2000. While the 2003 release of *CS 1.6* is the version currently played in most tournaments, *Counter-strike: Source* was supposed to replace it after its 2004 release. This would have been a way for Valve to practically resell the same product but with updated graphics and at premium retail price. It was probably welcomed also by sponsors as it required three to four times the computing power compared to the original game. *CS: Source* must however be regarded as a failure since it's not nearly as popular as the game it was supposed to replace. This may change in the future, but due to the continued popularity of *CS 1.6*, Valve has decided to put advertising into the game as a way to increase the revenue stream [2].

CLOSING THE CIRCUIT

The results so far have been presented with the three circuits of interactivity [19] being discussed in sequence; discussing players, users and consumers and programmers, marketers and designers one after the other. What remains

is to close the circuit; to tell a feasible story of how technology, marketing and culture relate to each other.

As the metaphor of a circuit suggests, the increasing organization and professionalization of the CS scene is not a top-down process but rather the result of constant and consecutive interactions between the three positions in each circuit (production, commodity and consumption). The specific affordances of the game in combination with the player base and various e-sport organizations and sponsors make these transformations possible. The software has evolved also taking the adoption of the game as an e-sport into account; different tournament formats and business models have been tried and rejected and the style of playing has changed over the years. One informant said that “if you’re away from the game for a couple of months, the way of playing will have changed completely; people come up with new ways of playing all the time.”

An example of a positive feedback loop between the three positions within the circuits is the attempt to turn CS into an accepted sport. A central discourse at Fragbite (see above) concerned the athleticism of playing CS and linked CS to traditional sports. These sentiments are directly mirrored on the WCG web-site which states that WCG’s aim is to create a “healthy cyber culture” and defines the World Cyber Games as “a global tournament in which sport is conducted within the medium of cyberspace, also known as e-sports”. On Intel’s *Game on* website a promotion film for the sponsored clan *SK gaming* is said to show “the pure sportsmanship and a highly professional attitude of the SK clan” [17]. These three actors don’t match the positions in the model perfectly; as always, abstract models need to be adapted when they meet concrete empirical material. For example, most participants in the Fragbite forum best fit the “player” (consumption) position in the culture circuit, whereas those playing for sponsored e-sport organizations may as well be understood as marketers having been recruited to market and represent e-sports (marketing circuit; production position). Intel and WCG don’t neatly fit into any of the “subject-positions” that the model offers but can be seen as actors belonging somewhere in the technology and marketing circuit respectively.

The attempts to establish *CS: Source* as the follow-up to *CS 1.6* can on the other hand not be viewed as a positive feedback loop since different positions in the circuits are pulling in different directions. The production side (marketers, designers and programmers) is here in conflict with the consumption side (consumers, players and users) even to the extent that there is a latent conflict between “real” marketers and the professional players (who prefer the “old” version of the game). It is also an example of how the professional identity developed in the cultural circuit – following the growth of the scene and the higher demands on practice and skills – has raised the players’ awareness of their ability to affect events such as the WCG. It is the *players* – professional, semi-professional or amateur – that have maintained *CS 1.6* as the biggest official tournaments

game despite the wishes of sponsors and tournaments. The players prefer how *CS 1.6* feels and operates and are unwilling to make a switch to something they regard as inferior. The resistance has so far been successful in contrast with how such conflicts usually play out in MMORPGs (i.e. the players have little choice but to accept an update, e.g. a new software-imposed regime).

BEYOND THE CIRCUIT

In this paper we have moved between the three circuits of interactivity while discussing cognitive, technological, economical and cultural dimensions of Counter-strike gameplay. Our analysis not only provides an understanding of gameplay in CS, but also constitutes a qualitative description of how a variety of factors can influence gameplay activities on different levels. Furthermore, our paper also illustrates how gameplay can be approached and studied methodologically and analyzed theoretically without losing sight of the fact that gameplay is situated and that it takes place in social contexts created and shaped by individuals as well as by organizational practices.

Some of the material collected has not yet been analyzed and future questions to be explored have to do with learning processes in CS and what they can tell us about learning processes in computer games in general [26]. Also, issues related to gender should be highlighted in future work since e-sports at present is a overwhelmingly male domain [5]. Lastly, there is work remaining to develop the circuits model [19] and to reapply it to our material. E-sports have thus far been given little attention within game studies and we hope that our work will contribute to increased knowledge and an increased interest in competitive gaming also from an academic point of view.

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