DIGITAL GAMING AND LANGUAGE LEARNING: AUTONOMY AND COMMUNITY

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The relationship between digital game play and second language (L2) learning is a particularly tricky issue in East Asia. Though there is an emerging presence of Chinese online games, many more young people are playing the English- or Japanese-language versions of the most popular commercial off-the-shelf (COTS) video games. In other words, most Chinese gamers are playing L2 digital games in their leisure time. Informed by research on out-of-class L2 learning, this paper discusses findings from an exploratory study investigating L2 gaming and learning practices in young people’s everyday lives. Drawing on rich data from gaming sessions, stimulated recall, focus group discussion, individual interviews and online discussion forums, this paper argues that gamers exercise autonomy by managing their gameplay both as leisure and learning practices in different dimensions (location, formality, locus of control, pedagogy and trajectory). At the same time, gameplay-as-learning practices are supported by wider communities of digital gamers who take on roles as language teachers and advisers. The paper suggests that activities in these dimensions mediated learning autonomously and from community, and discusses the research and pedagogical implications for L2 gaming and learning.

Keywords: Learner Autonomy, Second Language Acquisition, Computer-Assisted Language Learning


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INTRODUCTION

Many of the most popular commercial off-the-shelf (COTS) games played in China, Hong Kong and Taiwan are developed and published by Japanese and American game developers. COTS games are “designed purely for fun and entertainment rather than for learning” (Whitton, 2010, p. 199). These games are first released in Japanese or English language versions, and bilingual Chinese versions are often released at a much later date, if at all. In these regions, English is taught as a compulsory subject in schools, while Japanese is popular as a language for informal learning, but not widely taught in schools. Chinese-speaking East Asia, then, presents an interesting context to study digital gaming and second language (L2) learning because gamers frequently use an L2 to play digital games outside the classroom. While gamers are playing L2 games, many are also using L2 gameplay for L2 learning. Some are playing and learning autonomously, while some are seeking support from communities (Chik, 2012). This paper seeks to understand the ways gamers practice autonomy within community by managing their gameplay both as leisure and as learning practices in different dimensions (location, formality, locus of control, formality, and trajectory).

LITERATURE REVIEW

L2 Learning Through Digital Gaming

Interest in learning through digital games has intensified in recent years, and researchers and teachers have been keen to harness the pedagogical benefits in classroom contexts. Recent research highlights the
diverse L2 learning affordances and opportunities available in COTS and massively multiplayer online role-playing games (MMORPGs) (Cornillie, Thorne, & Desmet, 2012; Reinders, 2012). In exploring the pedagogical potentials and benefits of gaming in education, Reinhardt and Sykes (2012) distinguish ‘game-enhanced’ or ‘game-based’ learning and pedagogy from educational or COTS games for learning or pedagogy. Their framework provides four perspectives on research into the relationships between L2 gaming, learning, and teaching: game-enhanced, game-based, L2 learning focus, and L2 pedagogy focus. Among these four perspectives, there is a need for more research on game-enhanced L2 learning that occurs “in the wild” (p. 33), which means playing COTS games to achieve L2 learning in natural settings. Reinhardt and Sykes argue that studies in this area have focused on exploring the broad learning potentials of L2 gaming, which could inform pedagogies. Sykes and Reinhardt (2013) further examine possible contributions of digital gaming in light of five key areas in L2 learning (goals, interaction, feedback, context, and motivation). By mapping L2 learning theories onto gameplay designs and principles, the authors provide a potential blueprint for the implementation of game-mediated L2 learning activities in classroom contexts.

However, digital gaming is not sanctioned in schools in East Asia, where it is frequently viewed as addictive and non-educational (see for example, Gentile, Choo, Liau, Sim, Li, Fung, & Khoo, 2011). L2 digital gaming, therefore, takes place mainly in “entirely out-of-school non-institutional realms of freely chosen digital engagement” (Thorne, Black, & Sykes, 2009, p. 802). There have been several studies investigating gamers’ L2 learning in out-of-class contexts, which cover a range of autonomous and communal learning practices. Sylvén and Sundqvist (2012) surveyed the extramural English activities enjoyed by 86 Swedish youths (aged 11–12) and found that playing digital games was more popular than watching TV or listening to music. Analysis of self-reported activity diaries identified three groups of gamers: non, moderate, and frequent. The frequent gamers achieved the highest score in a vocabulary test, followed by the moderate and then the non-gamers. Sylvén and Sundqvist suggest that there is a positive correlation between L2 gaming and incidental and informal L2 learning, and the reading of in-game texts could be a key learning facilitator. Studies of Hong Kong Chinese gamers found that they self-directed L2 learning through out-of-school L2 gaming primarily for pleasure (Benson & Chik, 2011; Chik, 2011; 2012). These gamers viewed gameplay enhancement as the primary driving force behind L2 learning and utilized online communities for support. In the process, many L2 gamers developed autonomy in out-of-class L2 learning through L2 gaming, and in return, some also contributed game walkthroughs, or strategy guides, to gaming communities.

Thorne (2008) used the World of Warcraft (WoW) in-game chat between an American and a Ukrainian university students during collaborative gameplay to illustrate L2 learning episodes that occurred naturally during gaming. Thorne argued that in task-based role-playing games, L2 use is often required for social action in gameplay in multilingual online game worlds. The analysis showed the two gamers came to a linguistic middle ground first by affirming their passion for WoW, and then by taking turns being learners and teachers for language exchanges in Russian and English. Thorne’s study illustrates natural and autonomous learning moments of native speakers of two different languages teaching each other in the multilingual WoW gameworld. Rama, Black, Van Es, and Warschauer (2012) argue that immersive worlds like WoW provide and support safe learning and languaging spaces, facilitate interactions that stress communicative competence, and provide goal-directed action between expert and beginner players. Their qualitative study used the language learning and gaming experiences of two L2 Spanish gamers to show that the affordances available in WoW give L2 players the opportunities and spaces to use L2 for authentic cooperative actions. The experience of one player, Emilio, shows that gaming expertise could compensate for lack of L2 ability in cooperative gameplay. While Emilio was lending his gaming expertise, he gained language support from the gaming community. Thus, Rama et al. cautioned teachers to take into account learners’ gaming experience and to provide training for mechanics of the game when planning to integrate MMORPGs into the L2 curriculum. Yet, Rama et al. have
concerns over the relatively unstructured L2 learning progress and the L2 forms presented in such authentic interactions, which could be overcome by using dictionary or translation add-ons. Turning to console-based gameplay, Piirainen-Marsh and Tainio (2009) show L2 gaming could be utilized as learning resources in naturalistic settings and the game avatars could become the L2 ‘teachers’. Although the two Finnish teens mainly conversed with each other in Finnish while playing Final Fantasy X, they repeated after or used the English phrases spoken by game avatars. The authors used Conversation Analysis to analyze gameplay sessions and found patterns of other-repetition. The two players used four types of other-repetition, which included repeating in the next turn, repeating previously heard phrases, re-contextualizing familiar phrases and expanding on utterances. Piirainen-Marsh and Tainio’s study highlights the importance of learning around gaming as well as how L2 players turned game texts into ludic learning resources through other repetition.

In addition to online gaming interaction, current research on digital gaming identified in-game text consumption and game-related text production as providing affordances for L2 learning. Affordances for L2 learning may also vary according to learners’ proficiency levels. A corpus analysis of the in-game texts from WoW, shows “a high degree of lexical sophistication, lexical diversity, and syntactic complexity” (Thorne et al., 2012: 290). Gee (2012) argues that “games associate words with images, actions, goals and dialogue, not just with definitions or other words” (p. xiv), so that learners understand them in context, rather than as abstract symbols. Good games engage players not only in playing the game, but also in reading and writing about them on interest-driven websites. Game-related texts, such as walkthroughs, video tutorials, fan fiction and fan art, have been described as “paratexts” (Apperley & Walsh, 2012; Consalvo, 2007), or “attendant discourse” (Sykes & Reinhardt, 2013). These game-related texts are not just practical texts for instructions and strategy training, they are also imaginative and creative outputs developed by gamers and circulated in online gaming communities. These texts are often highly sophisticated, with rich lexical items and syntactic structures, and of multiple genres (Thorne et al., 2012). Through reading and producing these paratexts, gamers gain literacy experience that is likely to be important for future academic and career development (Gee & Hayes, 2011).

**Autonomy and Community in Out-of-Class Learning**

Despite increasing interest in out-of-class L2 gaming research, research has yet to show how gamers actively organize their L2 gaming and learning practices over time. This organization is related to learner autonomy, which, in its simplest definition, is “the ability to take charge of one’s own learning” (Holec, 1981, p. 3). Little (1991) argues that, “[the capacity for autonomy will be displayed both in the way the learner learns and in the way he or she transfers what has been learned to wider contexts” (p. 4). This wider application suggests that learner autonomy is not limited to the classroom. Macaro (2008) theorizes that when learners can fulfill their communicative goals through a specific variety of English (e.g. code-switching), they are more likely to take explicit and specific action to control their learning. Adopting a sociocultural perspective, Ushioda (2007) suggests that the keys to developing autonomy are motivation and “a social environment that supports learners’ sense of autonomy and intrinsic motivation to pursue optimal challenges through the zone of proximal development” (p. 15). In a study on Japanese university students, Murray and Fujishima (2013) concur that the community and the affordances available within the physical learning spaces provided the necessary environment for learners to act and interact to cultivate autonomy. The authors defined a learning community as “consist[ing] of individuals who come together to accomplish a specific end or goal” (p. 70). When applied to digital gaming and L2 learning, the concept of autonomy and community is important in two aspects. First, gamers frequently make independent decisions on gaming choices; and second, using game-external websites and other communal resources is integral to the overall gaming experiences (Thorne et al., 2012). When digital gaming is a community-based activity, the autonomous learning involved will inevitably be community-based as well.

One challenge in exploring learning in out-of-class settings is the web of connected, unconnected and interconnected activities that learners usually engage in, and the aforementioned studies contributed in the
area of ethnographical recording of activities which theorize a particular construct to evaluate the engaged activities. So far, the only framework that has attempted to theorize out-of-class L2 learning was proposed by Benson (2011). His framework analyzes the “settings” for out-of-class L2 learning and the “modes of practice” they support. Setting is conceptualized as the space, relationships and arrangement for learning while a mode of practice is “a set of routine pedagogical processes that deploy features of a particular setting and may be characteristic of it” (p. 14). To understand the setting and the modes of practice will depend on the clarification of the following four dimensions:

1. **Location** The place in which a learning activity takes place, which can refer to both physical and virtual environments
2. **Formality** Concerned with whether or not a learning activity is part of an institutional programme possibly leading to qualifications. Informal learning usually involves pursuit of interests outside institutionalized learning environments (Livingstone, 2006)
3. **Pedagogy** The degree to which instruction, structured progression of material, explicit explanation, and assessment are involved; and
4. **Locus of control** Hinges on whether a learning activity is self- or other-directed, or how the decisions about learning and teaching are distributed.

This framework is derived from the analysis of terms used frequently, and sometimes interchangeably, in research on language learning autonomy: out-of-class/school (location), informal learning (formality), non-instructed (pedagogy), and self-directed (locus of control). Benson and Chik (2011) applied the framework to evaluate L2 gaming, and argued that L2 gaming can be viewed as “naturalistic computer-assisted language learning”: “computer-based activities that are carried out on the student’s initiative, outside school, and mainly for the purpose of pursuing some interest through a foreign language, rather than for the direct purpose of learning the language” (p.5). Their findings suggest that Benson’s (2011) model can provide an entry point to a better understanding of the relationship between L2 gaming and L2 learning.

The growing body of research on L2 gaming suggests that digital gaming is not necessarily an individual activity: it is also a community- or team-based activity that involves gaming partners, either in physical proximity or in virtual gameworlds. Furthermore, gamers are actively participating in online communities to consume or produce game-related paratexts. By applying Benson’s framework in consideration of the exercise of autonomy in community on gamers’ self-organization and management of their own L2 learning practices, this paper seeks to add to research on game-enhanced learning and offer implications for future studies.

**RESEARCH DESIGN**

**Data Collection**

This study set out to understand how gamers practice autonomous learning within communities by mapping the findings from a 12-month exploratory study on L2 gaming in East Asian contexts to Benson’s (2011) framework for investigating out-of-class L2 learning. Yin (2009) defines a case study as “an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context” (p. 18) and observes that the case study method help researchers to “retain the holistic and meaningful characteristics of real-life events” (p. 4). Multiple case studies are justified when “the single case is of interest because it belongs to a particular collection of cases”, which share a “common characteristic or condition” (Stake, 2006, p. 4). This study used a multiple case study approach to examine how Chinese-speaking gamers managed their digital gameplay for L2 learning, and to explore their everyday practices of digital gaming and L2 learning. Each case study consisted of an in-depth multi-
method investigation of a young person’s out-of-class digital gaming and L2 learning practices. This approach puts the focus on how gaming activities are situated in participants’ lives, their perspectives on these activities, and the meanings that they attach to them.

In 2009, a participation call was sent to all Year 1 Chinese-speaking undergraduates in an English-medium Hong Kong university. Subsequently, 153 students responded by submitting background surveys on gaming practices and 500-word autobiographical language learning histories (LLHs) (Oxford, 1996) describing their L2 learning in out-of-class contexts. Among the respondents, about 50 undergraduates who explicitly mentioned using digital games for L2 learning were interviewed in depth. Following the interviews, 10 gamers from seven academic disciplines (M = 6, F = 4) were selected to participate in the one-year project (Table 1). These participants were selected primarily because they were able to articulate the ways they organized their gaming practices, both for entertainment and learning and because gaming was still part of their regular routines. The 10 participants came from China, Malaysia, and Hong Kong. All spoke either Cantonese or Mandarin as their first language, and learned English as an L2. Among the gamers, eight regularly played English-language games and two preferred Japanese-language games. The participants wrote extended LLHs on the roles of digital gaming in their L2 learning, joined a focus group discussion, blogged, recorded live gaming sessions, and participated in stimulated recall sessions.

In addition, the 10 participants took on the role of participant-researchers to interview five gamer friends to explore wider gaming practices in context. They then compiled a list of game-external Chinese-language websites and forums¹ that they or their gamer friends used for game information and gameplay strategies (2004–2012). These websites and forums were hosted in Mainland China, Hong Kong and Taiwan, and their users frequently contributed in Chinese (which include Cantonese, Simplified and Traditional Chinese characters, Chinese code-mixed with Cantonese, English, or Taiwanese Hokkien²). Though the servers are located in different regions, they appear to serve wider virtual communities of Chinese gamers. The archived collections of discussion threads on these websites served as ‘funds of knowledge’ (Moll, Amanti, Neff, & Gonzalez, 1992) in the context of digital gaming. From these online discussion forums, threads and texts relevant to L2 learning were selected for further analysis.

Table 1. Background Information for the 10 Gamer-Participants

<table>
<thead>
<tr>
<th>Gamer*</th>
<th>Discipline/ Major</th>
<th>Gaming preferences</th>
<th>Gaming consoles**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tracy</td>
<td>English</td>
<td>English online role-playing games</td>
<td>PC and PS2</td>
</tr>
<tr>
<td>Jana</td>
<td>English</td>
<td>Japanese games</td>
<td>NDS</td>
</tr>
<tr>
<td>Mabel</td>
<td>English</td>
<td>English role-playing games</td>
<td>NDS, PS3, PSP</td>
</tr>
<tr>
<td>Michael</td>
<td>English</td>
<td>English real-time strategy</td>
<td>PC</td>
</tr>
<tr>
<td>Sam</td>
<td>Surveying</td>
<td>English sports games</td>
<td>PC</td>
</tr>
<tr>
<td>Edmond</td>
<td>Electronic Engineering</td>
<td>English sports and real-time strategy games</td>
<td>PC</td>
</tr>
<tr>
<td>Carrie</td>
<td>Computer Science</td>
<td>Japanese action-adventure and role-playing games</td>
<td>PC and arcade centres</td>
</tr>
<tr>
<td>Kenneth</td>
<td>Psychology</td>
<td>English action-adventure games</td>
<td>NDS</td>
</tr>
<tr>
<td>Raymond</td>
<td>Business</td>
<td>English first-person shooter games</td>
<td>PC</td>
</tr>
<tr>
<td>Tom</td>
<td>Creative Media</td>
<td>English first-person shooter and action-adventure games</td>
<td>PC</td>
</tr>
</tbody>
</table>

Notes: *Names are pseudonyms chosen by participants. **Gaming consoles: Personal Computer (PC), PlayStation®2 (PS2), PlayStation®3 (PS3), PlayStation®Portable (PSP), and Nintendo DS (NDS)
Data Analysis Procedures

The data collected from the project included language learning histories, interviews, blog entries, recorded gameplay sessions, stimulated recall sessions, and threads from gaming forums. First, the spoken and written data collected were analysed using open coding (drawn from Grounded Theory, e.g. Charmaz, 2006; Saldaña, 2009) to generate themes identifying commonalities and differences in gaming practices among the participants. These themes included ‘taught by siblings’, ‘searching for L1 walkthroughs’, ‘reading/memorizing translated jargon lists’, and ‘gaming on overseas servers’. Second, online discussion threads extracted by participants were discussed with the researcher, and were then grouped under themes generated from the previous stage of analysis. The themes and related excerpts were then mapped onto Benson’s (2011) four dimensions of out-of-class learning to provide a picture of the contributions of L2 gaming to L2 learning. In the process, an additional dimension, ‘trajectory’, was identified to reflect gaming practice management over time and how learning is situated in a person’s past and future career. Trajectory uses the concept of a ‘career’ to refer to a perceived development and long-time engagement in digital gaming. It is assumed and understood that gamers seldom view playing games as a one-off activity. Instead, gamers tend to play games over a span of several or more years of their lives. Gamers play different games and have different gaming practices that fit into their personal or social worlds at different stages in life (Götzenbrucker & Köhl, 2009; Quandt, Grueninger, & Wimmer, 2009). Gaming may then be comparable to a career, “any social strand of any person’s course through life” (Goffman, 1968, p. 119). At both stages of analysis, it became clear that both the project participants and online discussants constantly referred to how they organized their gaming on their own, and at the same time, depended on online communities for resources and support. Thus, a trajectory dimension reflects how gamers self-organized and managed their game-enhanced L2 learning practices in consideration of the exercise of autonomy within community.

FINDINGS

Location: Creating learning environments

Gaming location can be both physical and virtual. Physical locations for L2 gaming include private households, game arcades, university campuses, and fast food chains. The choice of gaming location depended on the video game console – handheld (e.g. NDS and PSP), home video game (e.g. Wii, PS3, Xbox), personal computer (PC) or smart phone – and the game. Different locations provide affordances for different types of interactions. When gamers play offline and on their own, L2 learning is limited to interaction with in-game texts. But playing offline with friends observing on the side can provide additional interaction, and observers may learn more vocabulary and language than the players (deHaan, Reed, & Kuwada, 2010). In public spaces, gamers connect to overseas game servers via WiFi, which provide additional L2 interaction possibilities. Edmond and Tom, both living in student hall, claimed that organized gaming sessions on Saturday nights were packed with both local and international students to battle each other or overseas guilds (focus group interview). At these gatherings, gamers would show up with their laptops, and games were usually instantly installed. When both local and international students were present, English became the de facto gaming language.

Virtual L2 immersive environments, locations for learning, were created by simply changing the gaming language. Kenneth decided to play the Ace Attorney series, in order to be exposed to legal English. He graduated from a Chinese-medium secondary school, and was disappointed to enter university as a Psychology major when he wanted to study Law. To enrich his legal vocabulary, Kenneth made the effort to create an immersive personal environment filled with English-language crime and court games, and TV series. When he took Criminal Psychology, he was surprised to find that he did not have to spend as much time “memorizing professional and technical terminologies because I already knew them from my DS games and TV shows” (stimulated recall session).
Some gamers opted for a proactive route to create L2 immersive gaming locations. In an extended interview, Jing, a Beijing gamer, shared his experience of producing amateur Chinese, or Sinicized, versions of games. When a game was released in Japanese or English, the Chinese edition, if there even was one, would only be released at a much later date; so, many Chinese gamers resorted to developing and using free amateur Sinicized versions. In high school, Jing joined a team of about ten gamer-translators by responding to calls on a Bulletin Board System (BBS). His task was to translate a section of the in-game dialogues of Final Fantasy XII from English to Chinese within three days. The translation was submitted to chief editors for proofreading. Jing found it liberating to become a game-text translator, because “when I was invited back for the next project, I knew then my English comprehension was good enough” (interview). Though Jing was passionate about his translating activity, Sinicized versions were snubbed by other gamers: “I don’t know whether the people who made the add-ons had very bad English, or they simply used electronic dictionary to do the translation, the subtitles were usually ridiculous” (Carrie, focus group interview). And this opinion was generally shared among Hong Kong discussion forum users: ‘only idiots use stupid Sinicized version’ (2011-04-07, 00:50, Hong Kong forum).

The excerpts here highlight the ways gamers use L2 gaming to create personal L2 learning locations by a) gaming and interacting with other gamers in English in physical locations (e.g. the student hall); b) playing English-language games; and c) engaging in paratext production (e.g. translating in-game texts). The autonomous decision to create L2 learning locations is also supported by offline (e.g. other students in the hall) and online (e.g. other gamer-translator) communities.

Formality: From Incidental to Intentional Learning

When games are played out-of-class, L2 learning is generally informal. Hulstijn (2008) argues that explicit intention of learning and use of learning strategies are the defining features of intentional learning. In other words, everyday practices in informal contexts can be transformed into intentional learning activities. In the data, however, some gamer-participants suggested that pleasure in gaming was the primary motive for L2 learning, thus rendering L2 learning as incidental, or just vocabulary ‘picked up’ along gaming. In a focus group, Raymond offered, “I usually skip looking up new words and continue playing the game, you can’t keep stopping to use the dictionary…that’s just insane”. Yet within the informality of L2 gaming, gamers can bring in intentionality by opting for educational games or inserting learning activities to COTS games. Both Sam and Michael ‘jotted down words quickly and then looked them up later’ because new vocabulary could be essential knowledge for future game advancement. Real-time strategy gamers might find L2 learning while gaming impractical at times, but this was markedly different for Jana and Mabel, who primarily used NDS for their gameplay. Both Jana and Mabel used educational gameware for L2 learning: Jana was an elementary Japanese learner, and Mabel was taking French in university. Jana was not taking any formal courses, so she used both educational games (e.g. My Japanese Coach) and COTS games (e.g. Keroro Daisakusen and Cooking Mama) to learn. Mabel wanted to supplement her French class with ‘fun materials’, but found it impossible to follow the French in COTS games so she only used educational games (e.g. My French Coach and Mind Your Language: Learn French). When she found discrepancies in pronunciation, she did not have the courage to ask her French teacher because ‘it seems a bit silly to trust the game’ (stimulated recall interview).

When educational English learning games were compared and contrasted (2011-06-11, 22:34, Taiwanese forum), 21 forum contributors provided different suggestions and discussed the merits of English of the Dead, a Nintendo DS game. The game was released exclusively in Japan as a Japanese-to-English translation game. After three hours of discussion, all participants agreed that this game was more suitable for learning Japanese than for learning English as English was already taught in school. But not every gamer enjoyed educational gamewares, some suggested using COTS games instead:

Do you know that there are many English phrases in role-playing games? All the dialogues in Dragon Age are in English, and you say you can’t learn English? English lessons in school are so
boring. Gaming is an additional way to learn English. What’s wrong with that? (2010-08-03, 17:56, Hong Kong Forum)

The gaming career of Edmond, a Mainland Chinese student in Hong Kong, showed a shift from gaming-focused to learning-focused activity. Edmond was an outspoken young man, but he felt that his accent and lack of conversation strategies put him at a disadvantage. When he was in China, Edmond was already an avid gamer, and the habit didn’t change when he came to Hong Kong. He wanted to learn sports jargon in English in order to befriend and play with international students in his hall of residence. In the previous summer, Edmond took up his friend Jack’s advice to use sports games to learn basketball jargon and commentary because there was no class teaching “such kind of English”. In a stimulated recall session on his NBA 2K11 gameplay video, Edmond explained how he used sports games to enhance his “basketball knowledge in English”. Edmond approached gametexts as he would with L2 learning materials: he did everything his school teachers had taught him to do when learning new vocabulary and phrases. In the hour-long video, Edmond discussed jargon explanations and definitions with Jack, his gaming partner, paused the game, jotted down phrases, and repeated after the game commentators, “He’s going to get his first two points tonight”. All these actions suggest a degree of intentionality, a key aspect of autonomy, in formally using L2 gaming for L2 learning.

These examples suggest that though many L2 gamers prioritized gaming pleasure over L2 learning, some gamers appropriated L2 gaming for learning by turning incidental learning into intentional learning. Gamers proactively used COTS and educational gamewares to supplement their formal learning, or as the main resources for learning. In cases with educational gamewares, the learning was more autonomous; but communal advices were readily available for COTS games.

Pedagogy: Turn Playing into Teaching and Learning

The dimension of pedagogy concerns the structure and progression of instruction, and who gives the instruction. In terms of instruction, gamers first mentioned their ‘teachers’ and then how they discovered digital games as learning materials for themselves. Gamer-participants did not all learn to play games on their own. Most started out playing with their older siblings or relatives, and then school friends:

My English learning started in 1992 when my brother introduced the world-famous Warcraft to me...It provoked my desire to know more about orcs and medieval weaponry (Michael, LLH).

My first Japanese game was Mario Bros on my brother’s Gameboy Advance. He was the one teaching me the meaning of those Japanese words. Together we went through many adventures ^.^ (Mabel, LLH).

Gamers frequently drew on their immediate social circle of family and friends for learning support, but sooner or later, most gamers would seek help from online communities through discussion forums and blogs. The findings suggest that gamers generally do not prefer educational games, but many were aware of the pedagogical potentials of in-game texts such as game dialogues and visual cues. When a discussant asked about using role-playing games (RPGs) for English learning (2008-04-27, 11:01, Chinese forum), nineteen RPG games were listed half an hour later with evaluations of their language learning potentials (e.g. ‘Mafia: The City of Lost Heaven: you can read a lot of gangster language, slang, it is quite authentic’). When a new discussant said ‘these RPG games required good English, and I can’t play them’, a shorter list of alternatives was posted quickly to encourage the new discussant. A request was also made for using PSP games to learn English (2012-1-7, 19:40, Taiwanese forum), and a list of game titles was posted immediately. In addition, another discussant suggested ‘using your PSP to watch American dramas, playing English version games…and it is also fun to read the PSP English instruction manual, act now!’ (2012-1-19, 18:49, Taiwanese forum). Experienced gamers were usually quite enthusiastic and
willing to advise novices on how to use various games for L2 learning. Furthermore, many gamers were aware of using game consoles as learning tools for storing media learning materials.

In addition to language advising, some gamers also provided translated paratexts. The in-game dialogues and texts in sports simulation games (such as Football Manager and NBA) are usually only available in English (without Chinese subtitles), but unofficial Chinese translation of jargon and strategies are regularly posted on forums and blogs. An amateur-translated English-to-Chinese list of football jargon and gaming strategies for Football Manager 2010 was first posted on a Taiwanese gaming blog, which was later reposted on different Chinese and Hong Kong forums and blogs. At the end of the list, the Taiwanese blogger wrote,

I am going to say this even if you think I am nagging. I spent a lot of time and energy translating, and I am not absolutely happy with the translation. When you have a look at the English, then you will understand the Chinese meaning. No single translation can bring out the complete meaning of an English term because Chinese is different from English. My advice is to play the English edition and learn some English from the game (2009-11-17, 20:08, Taiwanese blog).

One translation that elicited a long discussion was the term ‘roaming’. The blogger originally put forward ‘walking aimlessly’ (漫走) as a possibility, and asked for confirmation. Others suggested ‘walking around’ (走動) and ‘wandering’ (漫遊). After rounds of discussion and negotiation, everyone agreed that ‘wandering’ was a better fit. To conclude the discussion, the blogger said:

I play the English edition...But I translated all the terms to encourage players not to use the Sinicized edition. I hope everyone will play the English edition, not the Sinicized edition (2010-04-06, 19:15, Taiwanese blog).

Research on L2 gaming has already shown L2 learning can arise from textual or social interaction within the gaming environments, but instructional and advisory roles taken up by gamers have been less frequently mentioned, if at all. Most participants first learned to play games by following oral instructions given by members of their immediate social circles (e.g. older siblings and friends). Then they went online to seek out written instructions available from communities with similar gaming interests (e.g. sports games, strategy games). In gaming communities, instructions and advice included both gaming strategies and suggestions for using L2 games for learning. In turns, these paratexts were hosted and archived on game-external websites and forums as resources for younger or novice gamers. In other words, gamers created community pedagogical resources, and acted as language advisers, teachers and translators for each other. Though various resources were available, it could be argued that there was no structured instruction for learning as gamers were moving from game to game. To a certain extent, this is one limitation of using L2 gaming for L2 learning.

Locus of Control: Making Learning Decisions

Locus of control relates to whether learning is self- or other-directed. In L2 gaming, this implies the learning of L2 in pursuit of an interest through L2 games. Some gamers chose L2 gaming simply because it was an investment in themselves, as noted in the Taiwanese forum entry:

To be honest, if I had to wait for the official release of the Chinese version, I might as well learn English by myself. It is possible to learn English faster than to learn Japanese. It is also an investment in myself (2011-10-04, 17:48, Taiwanese forum).

This was a response to a thread on comparing the release dates of bilingual game versions of Heavy Rain (English) and Dynasty Warriors (Japanese), and all discussants agreed that it would be faster to learn
better English than to wait for the Chinese release. However, self-directed L2 gaming is not equivalent to an absolute control of content learning, as the content of the L2 games will put a limit on the kind of L2 learned. Gamers understand the limitations, as Raymond pointed out during the focus group discussion that his preference for football games meant that he had a better vocabulary of football than of any other sports or on many other leisure topics. Raymond was not the only one. A lot of gamers were proud of their specialist vocabulary knowledge, for example, “street slang learned from GTA’ or ‘pilot’s vocabulary learned from Flight Simulator”. Though these gamers all acknowledged that these vocabulary items were highly specialized and were not used frequently in daily life, their confidence was nonetheless enhanced (Rama et al., 2012).

When gamers took the initiative to learn, advice from other gamers might not be accepted. A gamer wanted to find English-versions of bishōjo games for learning. In bishōjo games, players interact with virtual young women or make virtual girlfriends, and some games contain pornographic elements. This request sparked a strong debate on the moral issues surrounding bishōjo games, and many discussants suggested other RPGs as alternatives. Forty minutes after the first entry, the initiator defended himself by saying,

please do not recommend other games because everyone is different, and I do not like playing RPGs or other video games. I am most comfortable with learning foreign languages through bishōjo games. I just want to ask if there are any bishōjo games in English (2010-11-27, 10:40, Taiwanese forum).

While others were still skeptical of using bishōjo games for L2 learning, one discussant supported him for “personalizing game use for his own learning purpose” (2010-11-27, 11:15, Taiwanese forum).

These excerpts suggest that some L2 gamers were forced to accept gaming in L2 because it was the only option for consumers, then L2 learning appeared to be other- rather than self-directed. The excerpts also highlight how personal gaming preferences can channel L2 learning to specific directions, such as the acquisition of a specialist vocabulary. In this way, we can see gamers exercising their learner autonomy in pursuit of personal learning goals and interests. Finally, the bishōjo-request excerpt illuminates that the gaming community may provide L2 learning advice, but it is up to individual gamers whether they take the advice or not. Rather than the locus of control, which implies a central and unified locality of control, the different ways that gamers balance autonomous decision and communal advices should be viewed as a distribution of control.

**Trajectory: Managing Gaming and Learning over Time**

One common theme that emerged from the findings was the ways gamers discussed the different games they played at different times over the years: a pattern identifiable as a “trajectory”, which is not included in Benson’s (2011) framework. Trajectory concerns the management of out-of-school gaming practices over time, which is not only restricted to the amount of time or energy or money one spends on digital gaming. Trajectory is also about managing one’s practice from one game to another. While the concept of trajectory is not part of Benson’s framework, it is added here to account for noticeable patterns in the data, especially when considering practices of autonomy within community.

First, trajectory can refer to progression within a game series. As supported by opinion expressed online, gamers are usually faithful followers of certain game series. In 2010, Michael and Edmond were excited about Monster Hunter Portable 3, because both were seasoned Monster Hunter series players. As a fan of the Final Fantasy series, Mabel was willing to wait indefinitely for the international release of the Final Fantasy XIII English version, even though the Japanese version had already been released in December, 2009. Progression within a game series can be a mere technical advancement, but migration from one genre to another can be linguistically challenging. Gamers often make the effort to help other gamers
navigate around plot-driven and dialogue-heavy games by producing game-external paratexts. These texts include, but are not limited to, English-to-written Chinese translation of the in-game dialogues, game cheats, and walkthroughs (both print and video in Mandarin or Cantonese with some degree of code-mixing in English), and bilingual jargon lists. These paratexts are freely available on discussion forums and YouTube. When *L.A. Noire* (2011) was released, discussion forums were flooded with help requests. Within days, amateur-translated bilingual in-game texts and game cheats in Chinese were published and circulated on Hong Kong and Taiwanese forums. Some discussants complained about the English-only in-game texts, and started a comparison of the language demand in *L.A. Noire* and *Heavy Rain* (2010). Several responses recommended starting with *Heavy Rain* first: “When you understand the English in *Heavy Rain*, you will find it easier to play *L.A. Noire*” (2011-06-15, 00:24, Hong Kong forum).

Second, gaming language can prompt learning trajectory. As a child, Carrie inherited most of her games from her older brother and cousins, who all played Japanese games. In the beginning Her brother and cousins helped her with the Japanese instructions and some of the in-game texts. Soon her brother and cousins outgrew the games (especially the *Castlevania* series that Carrie liked), and she was stuck with a gaming language that she did not know. As a teenager, she took Japanese classes in her spare time in order to advance her gaming pleasure. Tracy, on the other hand, ventured into the English interface of a Korean online gaming world (*MapleStory*) because of the “cute graphics” (interview), and she teamed up with Korean gamers in collaborative play. Subsequent online and offline Korean friendship prompted her to start learning Korean. Michael claimed that gamers have to be good in English before they could get into real-time strategy games:

> Many providers began to desert their game rooms several years after the ICQ and online game room era, so I switched to offline strategy and management games. Achieving victory in these games usually requires a huge amount of reading and an extensive understanding of new vocabulary (Michael, LLH)

At a time when Chinese cheats and walkthroughs for strategy games were almost non-existent, Michael had to improve his English in order to advance gameplay. By turning his attention to the in-game language, he found unexpected pleasure that he did not find when reading literary texts in school. This appreciation for literary language was shared by online discussants when one discussant posted examples of poetic language used in *Dragon Age*, others responded by posting poetic examples from various games.

The examples here demonstrate that gamers created certain trajectories in their gaming practice management. A trajectory can be created by a) following all the game editions in a game series (e.g. *GTA*, *Final Fantasy*); b) choosing a preferred gaming language (e.g. Japanese or English); c) changing from one game genre to another; and d) moving from one game to another in the same game genre (e.g. from *Heavy Rain* to *L.A. Noire* in action-adventure games). To a certain extent, when gamers were younger, they were less able to take charge of managing their gaming practices because most games were shared among family members. As the participants grew older and became more experienced, they had greater autonomy in choosing the types of games they wanted to play. Consequently, they all stated that they used advices from online communities to help organize and manage their gaming careers. In turn, a trajectory can also impact a gamer’s L2 learning and use, especially when the gamer has a sense of viewing L2 gaming as a long term activity from childhood to young adulthood. This indicates that many gamers learn to organize their L2 gaming practices as they become more mature and experienced, and many of them do this through communal support.

**DISCUSSION**

The present study set out to examine the ways gamers practice autonomy within community by managing
their gameplay both as leisure and as learning practices. Firstly, this study found that among the four
dimensions in Benson’s framework (location, formality, pedagogy, and locus of control), location and
formality are more self-explanatory in illuminating how gamers practice autonomous L2 learning through
gaming. In addition to defining physical locations, this study explored the ways L2 gamers created
immersive environments conducive to learning. Gamers also suggested intentionality (formality) as the
key to turning informal L2 gaming into L2 learning experiences (Hulstijn, 2008). This suggests that L2
learning is not completely incidental, especially when gamers apply learning strategies learned from
school to L2 gaming. In line with findings by Piirainen-Marsh and Tainio (2009), L2 gamers learned an
L2 from gaming through textual and social interaction in community; however, it was not quite clear what
could be learned beyond L2 vocabulary. This may help explain how Swedish gamers would perform
better than non-gamers in a vocabulary test (Sylvén & Sundqvist, 2012). The other two dimensions—
pedagogy and locus of control—highlight certain limitations of L2 learning through gaming. The lack of
structured materials or instructions (pedagogy) appears to restrain progress in L2 learning. Findings on
locus of control suggest the distribution of control among individual, community and artefacts. To some
degree, the exercise of control could be limited by the age of the gamer or the available language interface
of a game. If the language interface of a COTS game is only available in a L2, all consequent learning
could be incidental rather than intentional. On the other hand, if a gamer chose to play an L2 game and
applied learning strategies, L2 learning would be intentional. The choice of game genres caters to
individual preferences and gears L2 learning in certain directions, and this personal preference is an
underexplored area in gaming study. The four dimensions provided a broad framework to explore L2
gaming as potential L2 learning experiences. In addition, the ways gamers learn to game in L2 also
suggest that they are transferring learning strategies learned at schools to wider contexts, which indicates
a development of autonomy (Little, 1991). This autonomous development is then supported by
communities, both offline friendship gaming groups and online gaming communities, which provide both
gaming paratexts and learning advice.

Secondly, this study identified a new dimension, trajectory, to expand Benson’s (2011) framework in
light of the practice of autonomy within gamer communities. Put in context, the original framework was
theorized as a template to explore how individual learners achieve learning or to explore how learning
could be understood in contexts beyond the language classrooms. In addition to managing gaming
practices, Gee and Hayes (2011) found that gamers also transferred literacy and life skills learned from
gaming to their formal learning, and this process took place over adolescence and young adulthood.
Findings from the present study also indicate that L2 gaming is a long-term leisure activity, and gamers
were shown to have actively managed their gaming practices by using both personal experience and
community resources. Borrowing Goffman’s (1968) concept of ‘career’ as “any social strand of any
person’s course through life” (p. 119), the addition of trajectory extends Benson’s (2011) framework to
include a temporal component in understanding L2 learning through gaming as a persistent and managed
career.

Thirdly, by situating L2 gaming in the East Asian social and economic contexts, support and affordances
within the online communities might have contributed greatly to L2 learning. Studies have shown game-
external paratexts to be complex and rich texts which could be conducive to L2 learning (Apperley &
Walsh, 2012; Sykes & Reinhardt, 2013; Thorne et al., 2012). This study confirms that the consumption
and production of paratexts was common within the online Chinese gaming communities. In addition,
gamers actively seek and give L2 learning advice on online discussion forums and blogs, thus creating
“funds of knowledge” (Moll et al., 1992) for other gamers. Gamers are not just learners; at times, some
take on instructional roles by teaching a partner to play a game, providing gameplay advice on discussion
forums, or translating in-game texts, and these are just a few of the roles mentioned. It is possible to argue
that the available affordances for gamers to act and interact online provides a potential social communal
space for them to develop autonomy in L2 learning (Murray & Fujishima, 2013). These online social
CONCLUSION
This exploratory study examined how gamers practice autonomy within community by managing their gameplay both as leisure and learning practices in five dimensions: location, formality, pedagogy, locus of control and trajectory. The study also identified autonomy as one of the keys to facilitate L2 learning through L2 gaming. Autonomy can be exercised differently in different dimensions, and findings indicate the affordances are not only limited to in-game interactions with game texts and with other gamers. The extended online gaming communities provide support in both L1 and L2 through paratexts and language learning advice. However, given that the present study is a small-scale exploratory study, there are certain limitations: the gamer-participants were university students and were gamers who have achieved a high level of L2 proficiency, so their practices may reflect a certain bias towards L2 learning. Also, these gamers grew up in late 1990s, a period when Chinese games were almost non-existent, whereas there are more Chinese-language online games available now. The online discussants cited in this study are self-selected groups of gamers who are keen on L2 gaming, and sharing their L2 gaming and learning experience; there are other groups that advocate and support gaming in L1.

Notwithstanding the limitations, findings from the present study may have some important research and pedagogical implications. First, for some gamers, organizing L2 gaming practices is a learning process, thus further research on exploring the organization of L2 gaming practices over time and space will be informative. When language use is an integral part of gaming, the trajectory of L2 gaming practices can well reflect the gamer’s L2 learning trajectory. A better understanding of the trajectory can inform the gap between L2 learning in school and in out-of-class contexts. Second, this study suggests that game-related paratexts in both L1 and L2 form the funds of knowledge (Moll et al., 1992) for many L2 gamers. At present, we are beginning to understand the complexity and creativity of game-related paratexts (Thorne et al., 2012), but we have yet to know more about the connection between the consumption and production of L1 and L2 paratexts. It will be especially fruitful to better understand the fluidity of the consumption of these, and how similarly or differently gamers use these paratexts. Finally, when COTS games are assumed to be only entertaining, many gamers have found ways to transform them into learning resources. These gamers utilize different learning strategies and sort out language advice. A major implication is that teachers and researchers should provide structures and guidance for young L2 learners on how to use L2 games to learn autonomously. In this way, students can be made aware that they have the ability to turn their preferred leisure activities into learning practices, and learn how to seek help from online communities. As we know more about these processes, we will gain more in-depth understandings of autonomy and communities in L2 gaming.

NOTES
1. The discussion forums and blogs included Hong Kong Discussion Forums (Hong Kong), UWants (Hong Kong), HKGolden (Hong Kong), Gamer (Taiwan), mobile01 (Taiwan), wahas (Taiwan), Netshow (China), A9VG (China), and Sina (China).
2. In this chapter, Taiwanese Hokkien refers the Chinese dialect used commonly in Taiwan, also known as Taiwanese.
3. In this chapter, written Chinese refers to the written form of Chinese, either in Traditional or Simplified Chinese characters. The written Chinese used by forum discussants is usually informal, incorporating regional dialect and slang, and occasional English terms and slang.
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