

# Toys Traveling through Geocaching: Mobile, Social and Hybrid Values of Play

**Pirita Ihamäki**

Prizztech Ltd.  
Siltapuistokatu 14  
28101 Pori, Finland  
+358 40 1646339  
pirita.ihamaki@prizz.fi

**Katriina Heljakka**

University of Turku  
Siltapuistokatu 14  
28101 Pori, Finland  
+358 400839952  
katriina.heljakka@utu.fi

## ABSTRACT

This study explores emerging play patterns around the object-based but technologically-enhanced practices of toy tourism. This popular type of toy play featuring game-like elements entails movement across platforms: physical spaces and digital environments. Through a case study that explored toys traveling as Travel Bugs in the context of geocaching, the aim of this paper is to clarify the creative, game-oriented play and perceived value of practitioners of toy tourism. Our study consisted of 66 survey responses from geocachers traveling with Travel Bugs all over the world and enabled us to gain a detailed understanding of the experienced values related to traveling toys in the context of geocaching. As a result, we present a conceptual framework in which the relations between the mobile, social and hybrid dimensions of the play value of toy tourism are modelled.

## Keywords

Game play, Geocaching, Toy mobility, Toy tourism, Travel Bugs, Social play

## INTRODUCTION

This paper explores emerging types of toy mobility through a case study exemplifying players traveling with toys and toys traveling ‘by themselves’ through Geocaching. The goal of our study was to investigate the dynamics underlying the phenomenon of traveling toys through notions of mobile, social and hybrid game play and the players of Travel Bugs. First, we wanted to find out about the variety of players’ experiences of this emerging type of toy tourism. Secondly, we wanted to know what constitutes play value in this form of ludic practice, which involves the use of both mobile devices (such as smartphones and GPS systems) and social computing in connection with physical playthings.

Geocaching is a digital hide-and seek game: The seeking is accomplished with the help of Geocaching applications or GPS devices, and the hiding is done by the geocachers

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themselves, who share their favourite places with the world. The adventurous geocachers, armed with Geocaching applications and coordinates found on the geocaching website, search for boxes, take a trinket and replace it, record their visit and meanwhile, enjoy someone's special spot (Ihamäki 2012).

Geocaching has introduced the concept of *Travel Bugs* to the gaming audience, which means that some of its players are traveling with toys and some send their toys out to travel. Geocaching as a social form of computing employs smartphone technology especially when players photograph and create other content for the Travel Bugs. The mobility in the context of socially shared *photoplay* (or, toy photography, see Heljakka 2013), including both physical, digital and mobile aspects of play, has its origins in practices related to toy libraries (sharing of playthings) and kindergarten mascots (sharing of one common plaything), both of which are moved across physical locations. Our work builds on this existing literature by taking a deeper look at the play practices built around Travel Bugs and the motivations of the players of this location-based form of play.

Prior work on Travel Bugs has been presented by for example, in a study by O'Hara (2008), which identified that players trust and collective responsibility are important for activities around moveable items, known as Travel Bugs. This identifies that geocaching is not just an individual act as the players contribute to the activity via online social computing when they are not caching outdoors.

Our study shows how Travel Bugs function as a novel form of toy tourism that utilizes the platform of geocaching: Users can design gameplay around Travel Bugs by, for example, lightweight creative photography, or cultivation of the traveling toy's personality through collaborative elaborative creations. In our study, we show how the geocaching community and players have 'gamified' the traveling of toys.

Geocaching is a materially mediated activity. It is a play practice because it is made up of an evolving nexus of activities and mediated by physical artefacts like Travel Bugs. The idea of individuals taking personal responsibility for the safe transfer and movements of key artefacts like Travel Bugs and maintaining caches, are examples of the cooperative efforts of actors playing together to sustain their shared understanding of the practice (Skinner et al. 2018). This gamification of object play encourages an implicit type of cooperation that in turn engages a particular culture of practices and customs. The framework of geocaching helps to maintain a level of consistency in the experiences related to toy tourism when players share their stories of Travel Bugs. In this respect, our results highlight the critical role that the geocaching community, as mediated through an online communication platform, plays in the creation and maintenance of location-based experiences with traveling toys.

## RELATED RESEARCH

The phenomenon of traveling toys has been previously explored in the context of tourism studies. For example, Shanna Robinson (2014) discussed toy mobility from the viewpoint of *vicarious travel*, meaning travel conducted on behalf of someone else (Robinson 2014). In this study, we define toy tourism as follows: *Toy tourism* occurs when toys travel either as travel companions of their owners or 'single-handedly' as is organised services provided by toy travel agencies (Heljakka 2013). Toy tourism may be categorised as free-form and open-ended – and in this way, as a creative play practice – and as a form of play structured to be goal-oriented and therefore game-like.

Toy tourism assumes a variety of forms, one of which is 'borrowing' Travel Bugs from other players in order to carry them from cache to cache (or person to person) in the context of geocaching. A Travel Bug used in geocaching is the standard for trackable

objects. Travel Bugs are metal dog tags that are typically attached to another object, such as a toy. Each Travel Bug has its own unique tracking number affixed to it. This number is used to prove that an item has been found. It also permits players to locate the personal websites for Travel Bugs. The central notion behind this system is that by picking up and dropping off Travel Bug trackable on their websites, the Bug's real-world adventures are being mirrored. Each Travel Bug has its own 'diary' that records its movements. Moreover, the terminology used in Travel Bug-based play reflects that of human tourism: Travel Bugs have their own hotels (geocacherspoilers 2011) – for example, the Mae West Travel Bug Resort – that can be used to benchmark players and thereby demonstrate how the 'traveling' of the Travel Bugs works (Mae West Travel Bug Resort 2009). The Bugs' goal may be game-like if, for example, they are given the task of reaching a specific country or travelling to a number of countries (Travel Bugs, FAQ 2018). Travel Bugs also have their own 'hotels' where people can drop off and pick up toys and take them to other places (Travel Bug hotels 2018).

Geocaching has been studied from the perspectives of, for example, education and tourism. The related literature presented with this study contains research in which focus was placed on geocaching games with Travel Bugs. That said, studies focusing on Travel Bugs are limited. For example, little attention has been given to the play practices involving Travel Bugs. For example, Larry (2004) used geocaching for education; as part of their classroom activities, students traced the movement of a Travel Bug on a physical map. The classroom followed the Travel Bug and requested photos of it on its travels, thereby constituting an ideal way by which the class participated in a virtual field trip (Larry 2004). Brockmann and Theis (2008) analysed dispersal characteristics of more than 200,000 Travel Bugs that visited more than 200 countries worldwide over a total distance of more than 1 billion km (Brockmann & Theis 2008). Rubio (2015) described Travel Bugs in caches around New York City and the creation of websites corresponding to those Travel Bugs. On the websites, players were asked to move the Travel Bugs they found in student-placed caches closer or farther away from the White House (toward or away from Washington D.C.) based on whether the player thought that a particular topic should be discussed in the upcoming presidential election. The students were asked to provide input on the issues attached to each Travel Bug and to write white papers about these issues to inform other players of their points of view and justifications (Rubio 2015). Ihämäki (2015) described how, in the Geocaching game, users generate content for geocaching: For example, as players of Travel Bugs, 'achievers' create new content for different platforms, some of which may be collectors' items. 'Atmosphere achievers' want to share their experiences and collect pursuits-related experiences (e.g., Travel Bugs, geocoins, pictures). Consequently, besides immaterial travel experiences they also want the playing to contribute to their material experiences. Some enthusiasts aim to collect experiences from as many countries as possible, or to go in search of geocaches, which local geocachers have hidden (Ihämäki 2015).

O'Hara (2008) described the playing with Travel Bugs as a mission for every participant to contribute in a collective and responsible way, and trusting other players to pick up a traveller and helping it to move to another geocache location. The social pressure to move Travel Bugs creates a sense of urgency to go and do another cache, which contributed to a cycle of continued participation (O'Hara 2008). We believe that this generation of social engagement with the geocaching game through active participation of its players both gamifies and adds value to traveling experiences enjoyed with toys. In this way, we suggest that geocaching functions as a contemporary platform for sending toys out to travel, which contributes to valued experiences in terms of hybrid, mobile and social play.

## OUR STUDY

In our study, we investigated both Travel Bugs and the players who travelled and shared their travel experiences with these toys. We were interested in toy traveling via geocaching, which is a mobile, hybrid and social form of gaming whereby experiences are shared with others digitally. The survey was named ‘Geocaching and Travel Bugs’.

In the study presented in this paper, we received a total of 66 survey responses from (n=45) Finnish geocachers, and (n=21) responses from international geocachers traveling with Travel Bugs all over the world. In contrast to previous work on Travel Bugs, we take a more holistic view in the location-based game-play activity by combining the aspects of creativity and social sharing in relation to playing the game: First, by acknowledging the creativity of the players ensuring the mobility of physical artefacts, second, highlighting the aspect of shared experiences and the stories of the Travel Bugs journeys as a form of social play, and third, by understanding this game-play around traveling toys as a hybrid play form that encompasses both physical in-situ aspects as well as online experiences.

The conceptual framework for toy tourism presented in the paper includes the aforementioned dimensions of mobile play, social play and hybrid play. First, *mobility* is a key element not only in terms of making the toys physically mobile, but tracking and following the journeys of the Travel Bugs with mobile devices. Some Travel Bugs have a trackable QR-code, which means that one can make a log in the Travel Bugs’ traveling diary in real time. Second, players engage in *social play* including both virtual and physical social interaction with other players of toy tourism. With social play we point to the collaboration between players that helps Travel Bugs to fulfil their mission for example to travel to certain locations. Third, by *hybrid play* we mean that players have a physical toy (with a digital presence), which they move from one cache to another. Sometimes players also exchange Travel Bugs with other players at Geocaching events. At the same time, play happens digitally as well: Players need to report in a digital diary where and when they picked up the Travel Bug and when they dropped it in another cache or gave it to another player.

All these three dimensions of play contribute together to experiences of play value related to toy tourism, which is realised through creativity and sociality of the players, for example through ‘photoplay’ (photographing of the toys), storytelling, and sharing their playful experiences with Travel Bugs for others to be consumed as spectators of play. Travel Bugs have usually been given assignments like in the case of the ‘Travel Bug called Dr. Geocacher’s’ mission is to travel around the world, spreading the word on a player’s doctoral thesis (see Figure 1.). The player describes her wishes for the Travel Bug in the following way: “I would like to see where Dr. Geocacher will visit, share the pictures or videos of Dr. Geocacher visiting places all over the world” (Dr. Geocacher 2016). According to its owner, this Travel Bug has already travelled 1218.9 kilometers.



**Figure 1.** A Travel Bug called Dr. Geocacher.

## Mobile Play

As portable tools of play, toys can be made mobile and hold our attention. Today's personal mobile devices have already been repurposed by independent, passionate users and groups for various forms of mobile play (Paulos 2003). In our case study, we were interested in exploring emerging trends in mobile play. Toy tourism studies represent a new area of academic inquiry into mobile play, which include investigations in player and object mobility through traveling, the use of camera technologies that enable 'photoplay', and sometimes, the employment of trackable codes like in the case of Travel Bugs.

Unravelling mysteries, deciphering clues and tracking down hidden treasures have become new forms of adventure tourism, one form of which is the popular game known as geocaching. Geocaching is an international outdoor treasure hunting game, which generates new forms of adventure tourism and connects the concept of Travel Bug activity to the idea of toy tourism. Geocachers share their own experiences online and give new meanings to places; some places present geocachers with different activities, such as solving various challenges before the Travel Bug can be picked up. Geocachers travelling to new places in search of unique experiences need to actively participate and have problem-solving skills to reach the caches and potentially find Travel Bugs inside them (Jenkins 2011).

Documenting the journeys of Travel Bugs through, for example, photoplay, is an essential element in their toy tourism. Photoplay refers to photographic play in relation to playthings, e.g., toy photography, or toy videography. Photoplay seems to be one of the most popular play patterns among mature toy players.

Robinson (2014) presented a case study focusing on traveling with a stuffed animal or toy. She explained that a traveling toy may have its own website or blog, a Twitter following, or a Facebook page. Robinson also discussed travel agents for toys as well as hosting programmes by which owners can send their toys to hosts, who in turn travel with the toys and send images of themselves – and the toys – to the owner (Robinson 2014). As in our case study, Travel Bugs have their own website on which geocachers can follow their toys' travels all over the world.

## Social Play

We understand playing with Travel Bugs as a type of toy tourism that includes game-like elements. Games have always been valued "as social experience, as a way for people to relate to each other [...]" (Arango-Forero et al. 2016). Sociality in games can be reflected in two aspects 1) player relationships and 2) social influence. *Player relationships* address the relationship between players and depend on what kind of social relationship the player wants with others. Relationships can include four options, which are *individual* (user play the game by his/her own), *collaborative* (players build something together), *competitive* (players competitive with others or groups), *opposed relationship* (you can be friendly or hostile, etc. player because of your role in the game) (Muller et al. 2006). Designers of social games want to bring more *social influence* into games, like education, learning and training (*Camelot*, Hong et al. 2010) to train children to collaborate); Health Improvement (*Ere Be Dragons*, Verhaegh et al. 2006) to monitor players' health status while walking); Personal Management (*Virtual Aquarium*, Davis et al. 2006) to help building a good tooth-brushing habit); and other similar games.

Sociality integrates social aspects of the real world – the player can interact with real human beings as s/he interacts with them in the real world. Again, social games refer to game applications that are integrated in social networking platforms. The key components that differentiate social games from other digital games are the ways in

which they are (1) social platform-based and (2) multiplayer, use (3) a real identity, and involve (4) casual gaming. The first three components of social games can be considered together as their social features. A player's social connections are an important part of the game: A social game is not social unless it is played by two or more people. The main game play of a typical social game involves social activities like trading, chatting or carrying toys to different caches (Nakajima et al. 2007). Social activity in the context of Travel Bugs is embedded in how toys are cooperatively transported around the world in the form of toy tourism, how they are played with through place-based storytelling, and via photoplaying on a global scale. The game world in the Travel Bugs game is the real world, where there are currently more than 3 million caches hidden.

Social media in its various forms also functions as a digital playscape in which players interact socially in terms of meaning making and shared play – as in our case study, where players shared their traveling experiences with each Travel Bug toy. Thus, players use social media not only to conduct the activity of play itself, but also to distribute documentation and knowledge of play and, at the same time, formulate an understanding of how different playthings convey play value (Ihamäki & Heljakka 2017).

In geocaching, the interaction happens also virtually when players report in a log book when they find a cache or a Travel Bug. Usually, players write about their location-based experiences of the cache or traveling experiences by for example taking pictures with Travel Bugs in the real world. Often, geocachers have the Geocaching App, which they use for playing the game, but they also have GroundSpeak Forum, an online discussion forum for players where they can share their experiences of Travel Bugs, local Facebook groups and other social media channels. The social nature of geocaching is demonstrated by GroundSpeak forum discussions, e-mail exchange of geocachers, and organising of geocaching events. Besides social media channels, the local communities are also considered important communication tools.

Social games enable players to interact with real life, which is why geocaching also entails real-life geocaching events. Players bring their trackable Travel Bugs, exchange them with players, and interact with fellow 'toyfriends'. After the events, players write about their Travel Bugs on their own websites, on which they have registered the items. When they leave Travel Bugs for other geocachers to pick up, they post the geocached locations of the toys on their websites. Thereby, players on this massively multiplayer online (MMO) geocaching game can follow the movements of the Travel Bugs.

## **Hybrid Play**

As Robinson (2014) mentioned, traveling toys have their own social media profiles and presence, which makes it possible to situate toy tourism as a *hybrid* phenomenon resulting from the convergence of media platforms. As a social phenomenon, convergence reflects a significant 'change in the way audiences interact, participate and respond, across multiple digital platforms, to both media and personal content flow' (Arango-Forero et al. 2016).

Hybridization between different forms of entertainment media has long interested scholars of various types of playthings, both digital and physical. Hybridity in a plaything may occur in many ways. Examples of levels or dimensions of hybridity in games and toys have been explored by, for example, by Heljakka (2012) and Tyni et al. (2013). As suggested, the dimensions of hybridity in relation to play(ful) products – and in this case, a mobile tourism experience delivered through the platform of geocaching – are as follows: conceptual hybridity (open-ended vs. rule-bound

affordances of the product or service), technological hybridity (digitalization and gamification through technology, e.g., de-materialization), artefactual hybridity (hybridity in connection to physical materiality, like 'Travel Bug toys'), thematic hybridity (e.g., hybridity between narratives and characters, or so-called 'mash-ups') and functional hybridity (play patterns emerging between the digital and physical realms, e.g., re-materialization) (Heljakka 2012). Particularly relevant in our case are the conceptual, technological and functional forms of hybridity that result from the convergence of gamifying play patterns with toy tourism using the geocaching platform.

Moreover, it is notable how technologies such as smartphones, cameras and other devices not only provide access points to contemporary playscapes, but also function as toys themselves. In other words, technology lets players extend the play patterns associated with traditional and physical toys, like those in our case study, to the digital and social playscapes of Travel Bugs. The nature of contemporary object-based play is thus hybrid play (Heljakka 2012). In this paper, hybridity refers particularly to the combination of a digital game-world and the physical playscape. Hybridity has been seen as a value that can generate a variety of experiences with products and services. One recent example of a mobile, hybrid and social game is Pokémon GO by Niantic (2016).

Magerkurt et al. (2004) presented a conceptual model of augmented gaming applications in which they proposed to augment traditional entertainment technology with social and physical elements to form a new class of hybrid gaming applications. They argued that hybrid applications should integrate the social dynamics of co-located groups with computer games via interfaces that do not distract from the group situation (Magerkurt et al. 2004). However, when we add physical and social game domains, it might be sensible in certain game situations to adopt techniques from the real world, like in our case study, in which physical toys are moved by players across caches. Silva and Delacruz (2006) discussed the mobility of users in terms of location awareness, the way players socialise, and the ways in which they inhabit differentiated spaces. Players inhabit both the physical and digital worlds in hybrid reality games. Therefore, collaboration and mobility are essential components of hybrid reality gaming when players move the Travel Bugs across physical or digital space (Silva & Delacruz 2006).

## **RESEARCH METHOD**

The aim of the study was to reveal issues particular to different types of toy tourism experiences and to understand the values of players' of geocachers' associate with activities with Travel Bugs. The main goal was to gain a detailed understanding of current and future needs, requirements and play behaviour related to toy tourism and the sharing of experiences with other players on Travel Bugs in the Geocaching game. A set of player-centered research methods were employed: an Internet survey and the geocaching Groundspeak Forum (online forum for Geocaching.com) were used to collect data on experiences related to Travel Bugs.

### **Case Study**

The case study approach presented here comprised an empirical inquiry into a contemporary form of play within its real-life context (Scholz 2002): traveling with toys. A case study such as this can be conducted as a single-case design (Jääskeläinen 2001).

Our research questions were the following:

- RQ1: How does playing with Travel Bugs relate to mobile, social and hybrid play?

- RQ2: What values are attained by playing with Travel Bugs?
- RQ3: Who are the Travel Bugs players in the context of toy tourism?

The case study was completed with an internet survey of Finnish geocachers in August 2016, which generated 45 responses. A supplementary, international data set was collected between August 2018 and March 2019. Survey data were gathered from geocachers' Facebook groups. Secondary material was collected based on geocachers' stories about Travel Bugs at the Groundspeak Forum, and is used here to enhance the description of toy tourism and deepen knowledge about how geocaching is used for toy tourism.

## **Participants**

Although geocaching is played all over the world, this study represents a first-hand approach to capture a sample consisting of both national and international participants: Background information was collected from the 45 study participants from Finland and 21 international participants from multiple countries. Invitations to participate were distributed using the snowballing sampling method.

## **Internet Survey**

We used snowballing sampling to collect our data by forwarding a link to the survey to the local Finnish, Australian, Scottish, New Zealand-based and a few North American Facebook groups of geocachers' and friends who play the geocaching game. Snowball sampling is a chain referral sampling method that relies on referrals from initial subjects to generate additional subjects. This sampling method produces biased samples because respondents who have a large number of social connections are able to provide researcher with a higher proportion of other respondents who most likely have characteristics similar to that initial respondent (Rice & Ezzy 1999).

The goal of the geocachers traveling with Travel Bugs survey was to tackle a wide set of questions regarding player experience and play values as shared in the geocaching community. Special emphasis was put on the sharing of remarkable experiences and the exploration of Geocaching.com, the Groundspeak Forum and Travel Bugs stories to learn more about the geocaching game itself, as viewed in the toy tourism context. With this survey, named 'Geocaching and Travel Bugs', we aimed to understand what kinds of experiences players of travel Bugs have in terms of creativity and consumption, for example, how it motivates social interaction. Background information consisted of socio-demographic data (age, gender, education and current profession). The survey link remained available for a few weeks.

## **Analysis**

In our analysis of the data, we used a content analysis approach. This process involves the identification of themes through careful reading and re-reading of the data (Erickson 1979). It is a form of pattern recognition within the data whereby emerging themes become the categories for analysis. The coding process involved recognising (seeing) an important experience for geocachers and encoding it (seeing it as something) prior to a process of interpretation. A 'good code' is one that captures the qualitative richness of the phenomenon. Encoding organises the data in order to identify and develop themes from them. Boyatzis defined a theme as 'a pattern in the information that at minimum describes and organizes the possible observations and at maximum interprets aspects of the phenomenon' (Boyatzis, p. 161). This involves a systematic, step-by-step process whereby the data are iteratively and reflexively analysed. Interactivity was applied throughout the process of qualitative inquiry and from secondary material based on geocaching conversations during the Groundspeak Forum. The data collection and analysis stages in this case study were undertaken concurrently; moreover, previous



stages of the process were reviewed before future analysis was undertaken to ensure that the developing themes were grounded in the original data.

This paper analyses results of answers to the following nine questions: 1. Do you consciously choose geocaching places where you can pick up Travel Bugs (TBs)? 2. Do you document your activities with TBs: Have you shared these documentations with others, and if yes, in which ways and where? 3. Did you visit a specific location in order to document your TBs adventures in that place? 4. Do you have fellow geocacher friends (international) who have travelled with their TBs and shared their stories on toy mobility? 5. How many TBs do you have? 6. Which different kinds of TBs have you travelled with? Tell about your experiences with these traveling toys, their backstories and names of the TBs and so on. 7. Where have you travelled with TBs (in abroad) and by what means of travel? 8. What is the meaning of TBs in Geocaching, and for you, personally? And, 9. How did you decide to set your TBs out to travel?

## **RESULTS: TRAVEL BUGS IN TOY TOURISM**

By elaborating on the concept of toy tourism through the Travel Bugs-related game-play activities and the impact of the toyification and gamification of traveling, we summarise and review the qualitative data regarding three relevant areas: the sharing of Travel Bugs experiences with other players (social gameplay), the play value of Travel Bugs within the geocaching game (play value) and the overall outcomes of traveling with toys (toy tourism). Given the limited sample size (total of n=66 responses; 45 geocachers from Finland and 21 geocachers from multiple countries), we used content analysis to draw provisional conclusions on the conceptual framework with respect to relations between mobile play, social play and hybrid play of toy tourism in the case of Travel Bugs. The following section analyses the survey data through the mobile, social, and hybrid play and furthermore, what we learned from the survey responses about play value associated with Travel Bugs.

### **Mobile Play**

Travel Bugs have become a major component of the geocaching game, which we have interpreted on the first hand from the perspective of mobility: Travel Bugs are easily transcending national boundaries and players travel long distances with these toys. For example, Brockmann & Theis found out that 200 000 Travel Bugs have visited more than 200 countries worldwide over a total distance of more than 1 billion km (Brockmann & Theis 2008). The results of our study present that *mobility is the most relevant goal of geocaching and especially in the playing with Travel Bugs*. On the one hand, players express creativity when setting goals for their Travel Bugs in the form of missions. On the other hand, players consume play generated by other players as they follow online the movement of Travel Bugs around the world and discuss different missions of the Travel Bugs at GroundSpeak Forum.

### **Social Play**

The results demonstrate that respondents played social games more frequently, spent more time on the game, and *became more engaged in game activities for the purpose of social interaction when they moved from one Travel Bugs cache to another*. Playing with Travel Bugs is both individual, but even more so, collaborative: One geocacher described a memorable experience with Travel Bugs in the following way: “Once we received a traveller at the Stockholm harbour who had the task of travelling to all countries bordering the Baltic Sea. We brought it with us to Finland, and as we were visiting Estonia in a few weeks, we took it there and left it in a cache. It travelled to at least a few countries west.” (Male Interviewee, anon., 41–50 years).

According to our study, toy tourism can be viewed as social game-play that motivates players to send toys all over the world. The toys are meaningful for players, and players

collect them as they are traveling or by asking relatives to bring back new Travel Bugs for the geocaching game: “My mother has brought us different kinds of Bugs from her work-related travels in the US, and they have been dropped in caches in both Finland and its vicinity. We have met Bugs from the States, Germany, the Netherlands, Hawaii, and elsewhere.” (Female Interviewee, anon., 21–30 years).

### Hybrid Play

First, hybrid play *encouraged active interplay between players on the (physical) Travel Bugs’ own (digital) websites*. Players follow the physical Travel Bugs journeys virtually on their own website. These toys allow geocachers more play(ful) engagement when the Bugs already have personal meaning for the geocacher: “I always bring my “Geo Buddy” Travel Bug with me when traveling, it is a plush toy key chain. It hangs from a ring attached to a handbag and often appears in photographs. I take a picture of the Geo Buddy at Earth caches and post it on its own website. I also photograph Geo Buddy with the most important sights at the destination. Sometimes, I photograph Geo Buddy with a similar plush toy Travel Bug and post them on their own websites.” (Female Interviewee, anon., 41–50 years).

### Play Value

Our study served as a possibility to investigate the play values of players collecting and sharing Travel Bugs stories once they are taken from one cache to another. Instead of offering only puzzles with single solutions, the Travel Bugs gave players opportunities for *creative productions* that promoted a deeper, interest-driven and narrative—‘storytelling’ and ‘photoplaying’—investment in the game experience. These features encouraged participants to participate in situated social play and intrinsically motivated toy tourism.

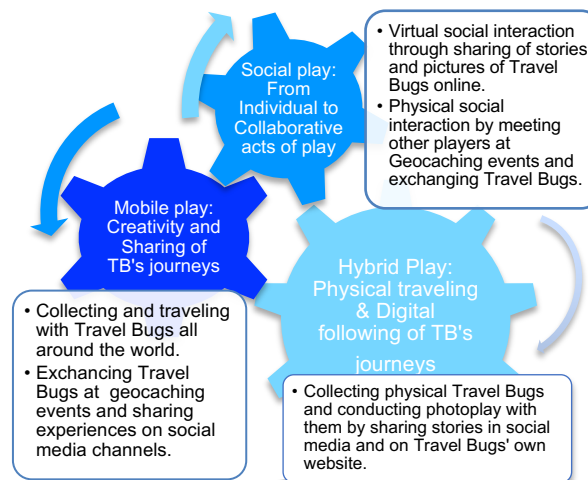
In our study, players reported having been interested in *documenting* the Travel Bugs’ journeys: “If I have a really nice and sympathetic traveller with me, I try to write long stories for each of the logs it has visited and to take a lot of pictures” (Female Interviewee, anon., 31–40 years). Other social media channels like Facebook and Instagram are likely to be used to share Travel Bugs pictures and stories: “From time to time I take pictures, in which the travellers sit on, for example, a can or in some interesting place. I have posted these photographs on the traveller’s own website (especially if the traveller belongs to someone else). I also publish on Instagram on a nearly daily basis, so in this way the travellers come to the public eye.” (Female Interviewee, anon., 51–60 years).

Travel Bugs usually have some kind of *assignment*, like the one described in the following interview excerpt: ‘I wanted to, for example, send Moomin Pappa out in the world to tell about the Moomin family and Tove Jansson [the creator of the Moomin characters] – and Finland. In a similar way, the whole Koiramäki family [another well-known Finnish character family, by Mauri Kunnas] went on adventures. The journey started from Bulgaria, where the Koiramäki characters took part in a traveller’s “rally”. A little dog started to travel around the world on the same day we received our vagabond back home” (Female Interviewee, anon., 51–60 years). This means that Travel Bugs generate additional play values to Geocaching, as Travel Bugs have a mission to complete. Play value is also generated by social interaction, which players engage in on the GroundSpeak Forum Travel Bug site or in the real world at Geocaching events, where players exchange for Travel Bugs with each other.

*Creativity and sharing* in connection with Travel Bugs-oriented play can be both *lightweight* and *elaborative*. It is up for the players to decide whether they want to participate casually in play by consuming what others have created in terms of missions for their Travel Bugs – making other player’s toys mobile and photographing them –

or, engaging more creatively, developing the narratives of other players' Travel Bugs or by setting their own toys to travel and creating innovative missions for these play objects.

Finally, in regard to toy tourism, play patterns in relation to mobile play, social play and hybrid play have player-generated and cultivated personalities is socially shared, a form of object play that permits unique experiences for sharing with others and generate play value. Overall, the conceptual framework of toy tourism in Geocaching, as a large-scale platform of mobile play, and the opportunities for creative social hybrid play contribute to a process of location-based play all over the world. The play patterns of mobile, social and hybrid play patterns together generate additional play value for Geocaching, as presented in the following framework (Figure 2.):



**Figure 2.** A conceptual framework of toy tourism in Geocaching, with mobile, social and hybrid play values.

## DISCUSSION AND CONCLUSION

In our study, toys travelled in through geocaching in the form of mobile, social and hybrid play. Their physical mobility was followed digitally through the Geocaching.com website. Playing creatively and collaboratively with Travel Bugs represented an added dimension to the geocaching game, giving players motivation to travel with toys, create stories for them and consume their journeys by spectating the adventures of other players Travel Bugs. At the same time, the toys were considered as meaningful as game elements to the geocachers.

The main contribution of this study is increased knowledge of toy tourism, especially of how geocachers both create and consume travel experiences with Travel Bugs and share their positive and memorable experiences. The case study is unique as well as informative about original values related to describing how geocachers have created a new format of play within Geocaching in the context of tourism. The paper's findings can be used to consider broader implications for location-based games and to discuss the relations between the virtual, the physical and the social dimensions of play in the context of traveling toys, or what we refer to as toy tourism. For example, Travel Bugs as a type of toy tourism adding a further dimension to the global game of Geocaching, can be seen as a motivational model to gamify (and toyify) other socially-oriented traveling experiences and in this way, to add value to the experiences of the playful traveller. This is a new way to understand the meanings attributed to the emerging trend

among players of different ages to mobilize toys and use them to play games that are both creative and competitive.

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