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"We've got a better situation": the life and afterlife of virtual communities in Google Lively

Isto Huvila
Department of ALM, Uppsala University, Uppsala, Sweden & School of Business and Economics, Åbo Akademi University, Turku, Finland

Abstract

Purpose – The purpose of this paper is to discuss the impact of unsustainable community platforms from community and information sharing perspectives using Google Lively as an example. The aim is to analyse what happens when a community platform is not sustainable and explore the reasons why Lively failed or succeeded as an arena of participation and information sharing.
Design/methodology/approach – The study is based on an ethnographically informed analysis of texts on Google Lively mined from the web and gathered using two small qualitative surveys.
Findings – The findings show that Lively fostered the emergence of several virtual communities that outlived the platform. Shared experience, experience of crisis and a distinct identity appeared to be significant factors that seemed to contribute to the success of analysed Livelian communities.
Research limitations/implications – The study is based on a convenience sample and an analysis of one virtual community platform.
Practical implications – The results inform the development of community strategies for situations when a platform is closing and plans are being made for the sustained existence of the virtual community in new contexts.
Originality/value – This is the first comprehensive study on Google Lively. The findings can be expected to have relevance also in the context of comparable virtual community platforms.

Keywords Diaspora, Sustainability, Communities, Non-sustainability
Paper type Research paper

Introduction

Esther Dyson (1998) described the internet as "a medium for us to extend our intellectual and emotional selves". In her libertarian neo-frontier discourse the internet is a medium that makes people take charge of their own lives and offers opportunities for free expression and endeavour. There is no doubt that the internet has functioned as a Dysonesque cultural landmark of the turn of the century. It became a new frontier with endless possibilities for self-expression, entrepreneurship and community building. The ease of starting a web site and the diversity of existing communities and community platforms has made it easy to participate and initiate new (virtual) bodies. While the internet has offered opportunities for thriving communities like Facebook or Second Life, there are many failures, not only for their founders, but also for their users. There.com, Vivaty, Metaplace, Forterra (e.g. Takahashi, 2010; McDonough *et al.*, 2010) and Uru (Pearce and Artemesia, 2009) are just a few examples of virtual community environments that have closed down. We know very little about the reasons why these environments fail (Pearce and Artemesia, 2009, p. 29) or how virtual communities could better cope with the closure of a particular platform and sustain independent of technical systems. The failure of an environment is not, however, necessarily the same thing as the failure of a community or its outcomes.

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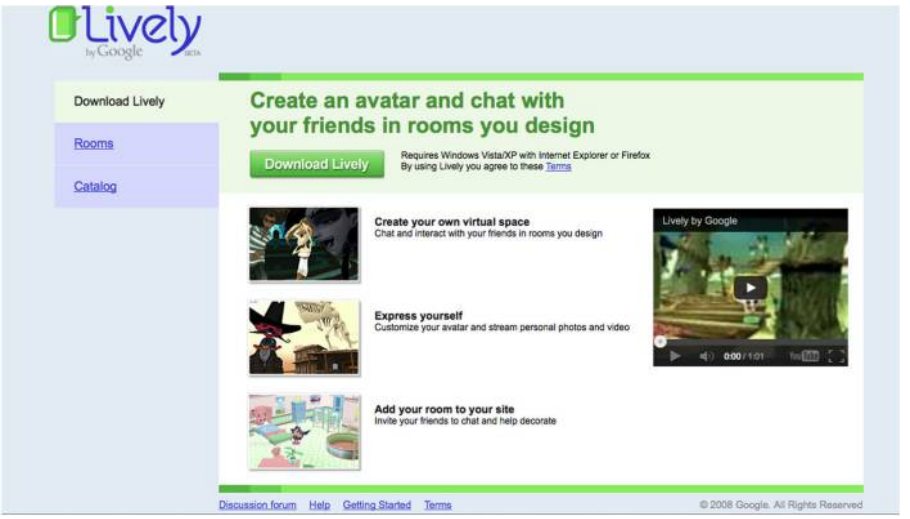
Usability for a specific purpose and sociability are two distinct features of virtual communities (Preece, 2001).

This paper explores the impact of unsustainability of internet community platforms for communities and information sharing using the short-lived Google Lively (www.lively.com) as an example. Lively was a browser plug-in based three dimensional (3D) chat environment composed of individual unconnected "rooms" and characterised by distinctive comic strip graphics and the use of semi-automated avatar animations. Because of the short lifespan of Google Lively, there is no earlier literature on that particular environment that originally raised much interest as a Google product but was given a highly mixed reception. Besides documenting and analysing the community processes on the particular environment, the findings have analytical relevance when studying similar processes on other virtual community platforms. The results of the study inform the development of community strategies for situations when a platform is closing and plans are being made for the sustained existence of the virtual community in new contexts (Figure 1).

The aim of this study is to explicate factors that affect the success and failure of virtual communities when a community platform is closed, and the qualities of the community platform that are considered to be important by the community members. The study is based on an ethnographically inspired content analysis of the discussion in the blogosphere and related discussion forums at the time when the service was launched (8 July 2008) and following the announcement of its closure (19 November 2008), complemented with small qualitative surveys of Lively users in December 2008 and September 2010 (Appendix). The theoretical and methodological underpinnings of the study are based on discursive phenomenography (Hasselgren and Beach, 1997), textual criticism and close reading (DuBois, 2003) and an ethnography of text (Blommaert, 2009). The focus of analysis is on elucidating the lived experiences of Livelian users and communities who documented their participation in the platform rather than to aim at explicating a "definite reason" why Lively was closed and how the



Source: www.lively.com

Figure 1.
A screenshot of Google Lively startpage in September 2008

totality of users who ever tried Lively felt about the platform. From the phenomenological perspective, the actual reasons are less significant for the life and afterlife of a community than how the community members lived and experienced the situations. Similarly, those individuals and communities that were only marginally engaged with Lively and did not explicitly process their experiences, can be argued to be less useful informants of how the communities endured the closure.

Literature review

Virtual communities

There is no clear consensus about the definition of a virtual community. In colloquial language, it is conventional to call (social) web services "virtual communities" although, as Croon and Ågren (1998) emphasise, a platform (e.g. virtual environment or information system) is only a premiss for the emergence of a community. The most cited definition of virtual community is undoubtedly Rheingold's (1993, p. 5). He proposes that "virtual communities are social aggregations that emerge from the Net when people carry on public discussions long enough, with sufficient human feeling, to form webs of personal relationships in cyberspace" (Rheingold, 1993, p. 5). Besides the problem creating a usable definition, the appropriateness of the term has been the subject of similarly complicated debate. Various authors have referred to "virtual" communities also by using terms such as internet communities (e.g. Brown and Duguid, 2000) and distributed communities (Wellman and Giulia, 1999).

Based on Strauss (1978), Brown and Duguid (2000) describe internet communities as social worlds consisting of people who share activities, space and technology, and who communicate with each another. According to Strauss (1978) a social world can also be identified by its coordination around a site and a primary activity such as work or learning. Brown and Duguid (2000) have also emphasised the essentially imagined (following the notion of imagined community of Anderson, 1991) nature of all internet communities. Krieger and Müller (2003) perceive virtual communities as similarly constructed entities and highlight their metaphorical character. Metaphors reproduce and legitimise communities.

An important characteristic of virtual communities that is frequently mentioned in the literature is their informational nature. They function as information neighbourhoods (Burnett, 2000) or information grounds (Savolainen, 2009), i.e. spaces where information activities take place and that are informational by their very nature. In general, the possibility to access information has been cited as the single most frequent motivation for participating in virtual communities besides factors such as social interaction and support, seeking friendship and pleasure (Ridings and Gefen, 2004; Ellis *et al.*, 2004). The salience of information-related activity varies between different types of virtual forums (Burnett and Buerkle, 2004), but as emphasised by Burnett, the convergence of information and communication is central to the nature of virtual communities (Burnett, 2000).

Success and failure of virtual communities

Participation, its motivations and sustainability have been popular topics of research in the analyses of the sustainability of virtual communities. A common conceptual starting point for community-oriented studies of motivation and participation is the notion of communities of practice (Lave and Wenger, 1991). It has been suggested that successful distributed communities of practice are based on shared interests, a common

identity, shared (information and) knowledge, voluntary participation, autonomy in setting goals, and an awareness of social protocols and goals (Lave and Wenger, 1991). Analogously, the lack of these aspects has been seen as major factors that contribute to the failure of virtual communities.

In addition to social aspects, the success of a virtual community depends on the underlying virtual community environment and its technological affordances. Notions of technology acceptance and information system success have been used to measure this dimension of sustainability. The model of technology acceptance (TAM) of Davis and Venkatesh (Davis, 1989; Venkatesh and Davis, 2000) suggest that the intention of use and usage behaviour are related to perceived usefulness and perceived ease of use of a system. DeLone and McLean (2003) and, for instance, Seddon (1997) (based on the critique of an earlier DeLone and McLean model) have proposed related models of information system success with slightly different emphases. The updated DeLone and McLean model makes a distinction between system quality, service quality and information quality. Lin (2008) has shown that the combination of the TAM model and the Seddon Information Systems Success Model (that refers to system and information quality instead of perceived usefulness) (Seddon, 1997) provided a better explanation than either of the models alone. In contrast to the professional contextual viewpoint of the major success and acceptance models, the study of Shin and Kim (2008) on user acceptance of Cyworld (based on a modified TAM model) promotes leisure-related subjective factors such as enjoyment and involvement. Hsu and Lin (2008) point out the relevance of similar factors in the context of blogs. The study shows that a (positive) attitude is related both to the intention to participate and the perceived relevance (usefulness, synchronicity, involvement and enjoyment) of a community. In general, the TAM and related models show that perceived information and service quality, ease of use, usefulness, user satisfaction and actual use are related to each other, but the significance of associations tends to differ in individual systems (e.g. DeLone and McLean, 2003; Lin, 2008, 2007). This underlines the fact that even if the models have universal explanatory power, the aspects of success and acceptance tend to differ for individual participants and systems (Venkatesh and Davis, 2000; Ginsburg and Weisbund, 2002). Novices and users from different cultural backgrounds may benefit from not adhering to established, sometimes obsolete, conventions. Expert users, on the other hand, tend to express dissatisfaction with unconventional designs (Lyytinen, 1988; Joshi and Lauer, 1998; Irani *et al.*, 2010).

The most common approach to conceptualise the failure of virtual communities is to see it as an opposite of their successfulness (e.g. Sangwan, 2005). Similarly to the successfulness, the typical measures of failure have focused on one hand, on the monetary (Storck and Hill, 2000; Braganza *et al.*, 2009) and non-monetary value creation (Chang *et al.*, 2013) and the usability of technology and its capacity to provide added functionality, for instance, to support geographically dispersed communities (Rheingold, 1993; Skog, 2005). At the same time, the sociological analyses of virtual communities have underlined the community (success and) failure as social and cognitive issues that relate to the lack of social capital, meaningful rewards (Lin and Huang, 2013) and experienced emotional pleasurability of the community (Sangwan, 2005; Chiu *et al.*, 2011). In contrast to the attempts to measure the monetary or non-monetary value of a community or to identify underlying factors of satisfaction, the present study focuses on the participation *per se* as a measure of success and failure. From this point of view, the virtual community platform and the "community" (that comprises of all users of a virtual community platform) can

be categorised as failures from a variety of, for instance, social, financial, cognitive and technical perspectives, but still participated and used by individuals and groups of people.

Sustained participation

A considerable part of community studies and technology-oriented "community platform" research has focused on measuring initial participation. Despite major similarities, the motivational factors for participating in the first place differ from the factors that foster sustained involvement. As DeLone and McLean (2003) stress, the intention to use is not the same thing as use. Similarly, joining a community is not the same thing as staying with it. From the community perspective, there is also a difference between participating a community, starting to use a particular community platform and the sustained engagement with them. As suggested earlier, a platform can be sustainable when a community is not, and vice versa, for a variety of reasons.

Sustained participation is dependent on personal factors such as perceived usefulness and perceived ease of use but at the same time and to a much greater extent, on longitudinal, interpersonal and infrastructural enablers and barriers such as organisational (information) culture, trust, (long-term) fit, offline and offsite activities and the availability of tools and technologies and procedures (Rothaermel and Sugiyama, 2001; Widén-Wulff, 2006; Ardichvili, 2008; Lin, 2007). Rothaermel and Sugiyama (2001) list additional factors of comfort, active site management, the availability of new content, the existence of collectively held knowledge, membership size, scalability of the community system and the level of site management. In Gomez (1998) study, a sense of nostalgia increased commitment to a studied information system. Pearce (2009) has made similar observations on the effect of self-identification to a place of origin. Cheung and Lee (2009) studied the dynamics of several factors that contribute to continued participation and, using a TAM inspired model, show that satisfaction, commitment and group norms had significant impact on the intention of continued use and intention to recommend. The individual-related factors corresponded to the level of perceived purposive value and self-discovery while social factors were more significant in determining commitment and group norms. Porra and Parks (2006) made a similar effort to investigate the correlations of individual factors by studying the applicability of the sustainability criteria of animal colonies in the context of virtual communities. In their results, the analytical constructs based on evolutionary attributes of phylogeny (a willingness to change), cognisance of both inter- and intra-generational change, boundaries (groups influenced an individual and members knowing each other well), fitting growth (willingness to gain new members), goals (shared values) and power (authority to make decisions) were related to the sustainability of virtual communities. Ethnographies provide further evidence on the complexity of the contributing factors. Pearce identified two types of practices that sustained the Uruvian community, a group of players of the closed massively multiplayer online game (MMOG) Uru: Ages beyond Myst who "migrated" to other virtual environments. The first is a process she calls productive play (Pearce and Artemesia, 2009, p. 157). Community members keep the community alive through the creative application of skills and imagination (Pearce and Artemesia, 2009, p. 110). Another factor is the appearance of emergent behaviour (Pearce and Artemesia, 2009, p. 48) among the members of the community. Emergent behaviour refers to unintended behavioural patterns and the use of the virtual community environment for various purposes not anticipated by its creators.

Even if there is a plenty of literature on participation and sustainability in the context of virtual environments, very little has been published on the sustainability of virtual communities originating from extinct virtual environments. For instance, Nardi (2010), Boellstorff (2008) and Malaby (2009) have published thick ethnographies of existing virtual communities, but the most comprehensive effort to map and analyse the sustainability of an individual diasporic community is undoubtedly the study of Pearce (2009, 2010, 2009) on the refugees of the defunct MMOG Uru: Ages Beyond Myst. Pearce followed in her work the life of a community of people who considered themselves as the inhabitants of the fictional game-world Uru. Due to the closure and a short-lived reopening of the game-world in a new version of Uru, the community moved from their "homeland" to other virtual worlds and arranged meetings even in the physically based reality. A peculiar aspect of the Uruvian behaviour was that they took their Uruvian customs, traditions and favourite pastimes to their new homes, which was a significant contributing factor to the sustainability of their community (Pearce and Artemesia, 2009).

The Uruvians are not, however, the only example of immigrant communities. Refugees, homeless residents and voluntary emigrants of several extant and extinct virtual worlds, for instance, The Sims Online (Pearce and Artemesia, 2009, p. 178), Vivaty (Takahashi, 2010), There.com (Pearce, 2010) and Second Life (Smith and Paquette, 2010) have been discussed briefly in the literature and media, but no comprehensive studies have been published on these communities so far.

The studies of sustained participation and especially, the Pearce's analysis of the Uruvian community shows the value of genealogical (longitudinal) diaspora studies in understanding the dynamics of virtual communities. The usefulness of these particular studies is in that they help to discern technological and socio-cultural aspects of community participation and its evolution. When a particular technological platform ceases to exist, some users start to do other things, but as the diaspora studies show, some users move individually or in groups to other environments retaining their identities as members of smaller and larger (virtual) communities. Taking a closer look at the evolution of these communities and community identities goes back to the two questions presented in the introduction of this study: what makes communities sustainable and unsustainable, and what consequences of the unsustainability of a platform has on the life and afterlife of its associated smaller and larger communities.

Methods and material

The present study is based on a qualitative content analysis (White and Marsh, 2006) and ethnographically inspired (Juffermans, 2008) close reading (DuBois, 2003) of the discussion in the blogosphere, in Lively related discussion forums at the time when the service was launched (8 July 2008) and when its closure was announced (19 November 2008). The data collection method was chosen to get a deep and broad view of Google Lively and its active users before, after and during the existence of the platform. In comparison to retrospective narratives (e.g. interviews, essays), the strength of analysed material is (assuming that the texts have not been edited to a large extent after they were published) that the accounts offer glimpses to that what the users of Lively thought and felt during the period of its existence.

The material was collected using a purposeful sampling (Patton, 2002) and chaining of interlinked material based on a snowball sampling method applied to web documents (Biernacki and Waldorf, 1981). The initial group of blog posts was selected

using Google Blog Search query "Google Lively" for posts published between 8 July 2008 and 14 July 2008 and 19 November 2008 and 25 November 2008. Links and backtracks of the postings were used to identify additional material. New data were collected and processed until the point of saturation was reached and the analysis of further posts did not seem to provide additional analytical categories (i.e. new information). The total number of analysed documents and discussion threads was 937. The analysis procedure follows the lines of earlier studies, (e.g. Neal and McKenzie, 2010; Kjellberg, 2009; Savolainen, 2010).

In order to obtain additional insights into the research question and to increase the validity of the study by data triangulation (Patton, 2002), the material collected from the blogosphere was complemented with two small qualitative surveys (Jansen, 2010) on Lively users conducted in December 2008 ($n = 15$) and September 2010 ($n = 9$). The second rationale for survey approach was the manageability of conducting a follow-up two years later. The surveys were based on convenience samples and the respondents were recruited by posting invitations to Lively GoogleGroups forum (http://groups.google.com/group/lively-help), New Lively forum (http://groups.google.com/group/newlively/) and two Lively user groups (Google Lively www.facebook.com/group.php?gid=17800889249 and Google Livelypeople www.facebook.com/group.php?gid=33000823000) on Facebook. Instead of aiming at getting quantitative data from a large number of respondents, the surveys were designed to collect richer open-ended narratives from such respondents who had been engaged enough with Lively to have interest in contributing to the survey. The survey method was chosen to include opinions from such Lively users who were not represented in the initially collected data. The survey was conducted as a web survey using Lime Survey (www.limesurvey.org) software. The respondents are referred to in the text with an id number and year in brackets (e.g. [1-08] or [5-10]).

After some initial trials of using a traditional classificatory approach to the rich, but highly heterogeneous visual and textual material that lead to contextually detached categorisations, the material was analysed as it is presented as a single biography of Google Lively in form of an ethnographically inspired thick description. The theoretical underpinnings of the approach are in discursive phenomenography and the notion of close reading (DuBois, 2003), and in the ethnography of text that emphasises ethnography as a paradigmatic theory of a critical analysis of texts (Blommaert, 2009). According to Blommaert, the ethnography of text is "a theoretically dense and complex approach which recreates the text not for the analyst, but for its original community of users" (Blommaert, 2009). Following the ethnographic rationale of the analytical approach, the theoretical and practical unit of analysis is Google Lively as a whole. The findings and analytical categories are aspects of the entire evolutionary ecosystem of the platform, its individual users and communities rather than a particular individual or group. After the initial analysis, the reliability of the thick description and the analytical categories derived from the close reading of the material, the findings were validated by analysing the original material again two months after the initial analysis using the constant comparative method (Glaser, 1965) from the perspectives of the community platform, community sustainability and individual users that were identified as major issues in the initial analysis.

The named communities and individuals have been anonymised in the analysis of discussion forum messages and blog posts that related directly to Livelian communities. References to this material are given in brackets using a pseudonym (e.g. [Digipeople, 2008]). Although the analysed material is publicly available, it became

apparent during the analysis that the evidence requires a higher degree of sensitivity to privacy issues than traditional published texts. For the same reason, this paper uses only a limited number of direct and potentially searchable quotations. Because of the absence of direct privacy issues, the individual blog posts written outside of the context of the two major communities have been cited as published texts.

The major limitation of the collected and analysed material is that it represents the opinions and views of a convenience sample of all Lively users. The represented opinions are Lively users who explicitly chose to voice their opinions (in blogosphere and in the surveys). Most of the represented individuals were by all accounts active rather than passive Lively users and in individual cases, those who had tried Lively once or twice and were empathetically disappointed. Within the group of active users of Lively, the material is further biased by the prominence of the texts written by two communities of Lively users, Livelypeople and Digiguys (pseudonyms), that took action after notice about the closure of the service. In both surveys, the number of participants was extremely small and according to the answers, the respondents represented active rather than average Lively users. In spite of the limitations related to the samples and their sizes, the data is valuable to complement primary research data and to provide insights into the viewpoints of active Lively users that are the central group of reference in relation to the aims of this study. In spite of the known and unknown bias and limitations, we argue that the sample is a relevant study population for the present qualitative investigation, because it is conceivable that the closure made a notable difference only for those who were active Lively users (i.e. perceived themselves as such) or, who for some reason, had strong negative opinions about the community platform. For others, Lively was unlikely to have made a noticeable difference as a technology or as a community platform. The findings are not generisable to the entire population of Lively users or the users of other community platforms. In spite of this limitation, it is plausible that understanding the identified themes and factors that influenced participation in Lively and understanding Google Lively from a user perspective as a platform can be useful for the future research and developers of virtual community services.

Analysis

Initial discussion

Google Lively was launched on 8 July 2008. The lead engineer of the project, Niniane Wang, described the project and its goals in a post on the Official Google Blog the same day. Wang refers to existing social networks and describes them as "static" and asks "what if you want to express yourself in a more fun way, with 3D graphics and real-time avatar interactions?" (Wang, 2008). The vision of Lively was to "help people experience another dimension of the web". Wang hoped that Lively would be used by its users to express themselves "with and without words" in places they "already visit on the web" (Wang, 2008). The focus of the blog post was on expression and interaction with words and avatar animations (Wang, 2008).

The initial discussion on the announcement of the new platform was characterised by the prevalence of individual comments and reviews (rather than reciprocal discussion) and the dominance of two major themes. The first theme consisted of comparisons of Lively with other 3D environments. The references to Lively were dominated by an expectation that as a successful major player in the internet business, Google would quickly seize the market of virtual worlds with its "Second Life killer" (Krangel, 2008) especially because rumours about such an application being developed

on the basis of the Google Earth (Jake and Pospisil, 2007) had been spread long before the launch of Lively. Lively was compared to Second Life by many bloggers and journalists (Cheng, 2008; greglas, 2008). At the same time, it seems that the commentators had difficulties in defining Lively (Koster, 2008). It was compared to Second Life and called a virtual world (Cheng, 2008), but also described as a social network (Cheng, 2008), social networking tool and a chat application (Gomez, 2008).

In addition to the positive comments, a line of initial scepticism emerged in the blogosphere and several commentators expressed their doubts about the project (Risley, 2008; greglas, 2008; Fernandez, 2008). For instance, the fact that the platform was limited to Windows XP and Vista, the size of the plug-in (10 MB), the absence of user created content, 20 avatar limit per room and the stability of the client raised questions about the project (e.g. Koster, 2008). The user interface and controls of Lively were also criticised for being very different from other 3D applications especially by those who claimed to have prior experience of virtual environments (e.g. Gomez, 2008).

In spite of the general scepticism of the first impressions, some users seemed to trust Google and its ability develop the concept of Lively. Lively was credited with focusing on chatting and augmenting it with one significant aspect, that of a place. In comparison to many other virtual worlds, Lively did not attempt to become a general solution to diverse unknown needs (e.g. Oriste, 2008; greglas, 2008; [3-10]). It also seems that Lively had managed to capture something of the anticipated "fun" (Wang, 2008) because both the environment and the outcomes of participation were described using a variety of positive adjectives ranging from "funny" and "cute" [1-10)(5-10)(6-10) to "magical" [Livelypeople, 2009c] and "inspirational" [Amos, 2008]. Another pertinent aspect of the interactive experience in Lively was the automatic and manual avatar animations. Animations helped to break the ice (Livelypeople, 2009k), functioned as "virtual body language" (e.g. [1-10][5-10][6-10][4-08][11-08]; [Livelypeople, 2009i]) and made conversations more "personal" [1-10][5-10][6-10]. The technical limitations of the environment were criticised but they were also felt to trigger creativity and lead to highly innovative room designs [Kate, 2008; Livelypeople, 2009i].

The second theme that dominated the discussion was the outspoken aim of the Lively team to integrate 3D environments with the web. Lively was seen only as a beginning of virtual worlds going mainstream (Elgan, 2008) and some users speculated about how Lively could be used, for instance, for socialising, sharing and changing communication patterns in existing communities of interest (Josh, 2008a). The enthusiasm translated to concrete projects like Google Lively FAQ (Lenssen, 2008a). In some cases, commentators reflected upon the characteristics and implications of Lively and its relation to the core business model of Google (Croll, 2008).

In addition to the discussion on the web, users engaged in social intercourse in Lively. Initially, a large number of users logged in and tried Lively. The beginning meant also a rapid expansion of adult content in Lively rooms which, however, was banned and removed by the Lively team rather soon after the launch (Lenssen, 2008b; e.g. [Michael, 2008; Anna, 2008; Clarabel, 2008]).

Even if the material does not allow to make generalisations of the population of Lively users, it is possible to identify three broad groups of users who discussed and commented on Lively. The first group "Professionals", represented by two respondents in the 2008 survey and the most of the initial Lively critics, had tested Lively in their professional work and were not very impressed of its functionality and flexibility in comparison to other virtual worlds, especially Second Life. The Professionals tended to indicate that Lively was unimportant for them and that they would continue their work

in Second Life or other virtual environments. After the protest campaign of 2008 also the Digiguys blog assumed an essentially "professional" viewpoint when the activities of the team were moved to OpenSim environment that offered them (at least) partly superior possibilities to pursue their goals.

For the second group, "Novices" (represented by five respondents in the first and three in the second survey and several writers, e.g. [Josh, 2009a; Veronica, 2008; Giulia, 2008; Lynn, 2008; Ian, 2008c; Josh, 2008b; Bruce, 2008a]), Lively was their first experience of virtual 3D worlds. The novices liked Lively, its ease of use and friendly atmosphere and tended to perceive Lively as important or very important to them. In December 2008, the survey respondents belonging this group were somewhat unsure where they would be moving after Lively, but both the web texts and 2010 survey results indicate that many of the former Lively users probably ended up in other 3D environments.

The third group of "Virtual citizens" (seven in 2008 survey, four in 2010 surveys and most of the Livelypeople members) had experience of several virtual worlds and tended to appreciate Lively especially for its atmosphere and people and secondarily for its deemphasis of purchasing items and integration to browser and web sites. The group tends to like Lively and perceive it as important or very important for them. The respondents of the 2008 survey in this group had already decided to move on into Second Life, IMVU and New Lively.

Closure

The closure of Lively was announced on 19 November 2008 in a post to the Official Google Blog (The Lively Team, 2008). Lively team explained that Lively will be closed down by the end of the year and encouraged Lively users to capture their "hard work by taking videos and screenshots" of their rooms (The Lively Team, 2008). Several Lively users followed the advice and captured their "memories" using screenshots [e.g. Haile, 2008] and videos, and by creating more ambitious works of digital art (Lee and Trace, 2009). Lively users were also urged not to delete their rooms but to preserve them on their web pages as images after Lively closed [Livelypeople, 2008h]. Some Lively users stayed in their rooms on the turn of the year 2008/2009 and filmed their last minutes in Lively [Livelypeople, 2009j].

The weeks after the announcement of the closure were marked by a series of activities in Lively, a wave of protests and a launch of two new pro-Lively blogs, Livelypeople and Digiguys (Livelypeople, 2008b; Hannah, 2008; Digiguys, 2010; Ian, 2008b). Livelypeople is a group of active Lively users that began to organise and lead the campaign against the closure. Livelypeople may be described as an emergent, socially heterogeneous community without formal leadership. Joe became closest to becoming a *de facto* leader of the community as a coordinator of its activities, but neither he nor anyone else had any official position. Digiguys, on the other hand, is a group of educational users that used Lively in learning and teaching digital citizenship during the autumn of 2008. The group was lead by Marie, a teacher who put considerable personal effort into the campaign. Both Livelypeople and Digiguys wrote letters and appeals to Google [e.g. Livelypeople, 2009m, f; Milla, 2008a; Livelypeople, 2008c] and even to the President of the USA in an attempt to convince Google of the viability of the service. Efforts were made to coordinate the protests within and between the two groups [Livelypeople, 2008a].

In addition to direct appeals, an online petition was setup [Livelypeople, 2008f] and signed 538 times (including some, apparently relatively isolated cases of unmistakable

spam and multiple signing). Livelypeople members created concept rooms that integrated Lively with other Google technologies and collected examples of how people had used Lively in social, business and education-related interactions [Lively users, 2008; Jordan, 2008]. A Lively user developed a translator bot for Lively in order to demonstrate the possibility of integrating Lively with other Google services [Livelypeople, 2008d]. Similarly, users tried to point out how it was too early to close down the service [Dennis, 2008], how Lively might be made profitable and how it could be used as a stepping stone in developing new business opportunities for Google [Juan, 2008; Steven and Oliver, 2008]. Lively users also made efforts to contact the lead developer of Lively through her blog (Wang, 2004-).

In spite of the apparent frustration that the decision was not lifted and individual expressions of being upset because Google had not replied to some contacts [Bruce, 2008b], the discussions were notably calm and perhaps almost surprisingly understanding. The students of the Digiguys expressed in their blog posts that the protests were worth the effort, albeit unsuccessful, as real-life lessons of net-activism [e.g. Diana, 2009; Milla, 2008b; Jason, 2008]. It seems that Google's unwillingness to renegotiate the closedown did not surprise the community members. The number of highly active Lively users was acknowledged to have been small even by the enthusiasts like Livelypeople [Livelypeople, 2009f; Ian, 2008a]. Besides expressing positive personal and utility related appeals to keep Lively alive, Lively users tended to protest most that the service had been "the neglected child of Google" [e.g. Joe, 2008a].

After lively

A number of active Lively users moved to other virtual environments after the closure. In the 2008 survey, four out of 15 had no plans about migrating elsewhere. Five had made up their minds and chosen another virtual world (mostly Second Life) and another five were undecided. In September 2010, half (4/9) of the respondents indicated that they were still in touch with the people they met in Lively mostly in Second Life, IMVU, chat, e-mail and social networks, two more had tried other platforms and had been disappointed. Individual Lively users decided to leave (3D) virtual worlds and "emigrate to first life" [Josh, 2009a, b, c]. Lack of time was the only explicitly quoted reason [Josh, 2009a, c].

The both major Lively communities, Livelypeople and Digiguys [Jones, 2009] created community presences in alternative 3D environments. Both communities still existed in end of 2010, but only Livelypeople had upheld an outspoken identity of former Lively users. Digiguys had continued to work on their topic of digital citizenship in an OpenSim environment (Digiguys, 2010). An introductory passage from Digiguys describes their strategy:

> OK, so Google did "kill" lively, but in many ways, we've got a better situation. Trevor Meister has become our sponsor and we have an island that we are building using OpenSim on Reaction Grid and We love it! (Digiguys, 2010).

Livelypeople moved to Second Life, IMVU and New Lively [Livelypeople, 2008g] after an evaluation of a large number of virtual environments by appointed "scouts". The community has organised occasional parties in these virtual environments [Sean, 2009; Livelypeople, 2009m, 2010e]. The group members designed themselves a logo [Livelypeople, 2009h] and set up websites. A list of Livelypeople "hangouts" in other environments was posted on the Livelypeople discussion forum at the end of 2008 [Joe, 2008b]. In 2009, the group celebrated the first anniversary of Lively in form of a

"blogathlon" (a month of blogging on Lively) and have held birthday parties for its members in Second Life, IMVU and New Lively [Livelypeople, 2009d]. In Second Life, Livelypeople received help from Linden Lab employees in the form of a plot of land where they could meet and learn to use Second Life in order to make the transition easier [Livelypeople, 2009b, l].

The Livelypeople blog has been silent since mid-2009, but the community has continued to organise parties and meetings in virtual environments [e.g. Livelypeople, 2010e,a] and in the physical world [Livelypeople, 2009e, g][8-10]. They have also kept on with their discussion forum for communication [Livelypeople, 2008-e] and engaged themselves in activities on other types of platforms such as Artpad (artpad.art.com) [Joe, 2009].

In spite of the active emigration, the discussions reveal, however, that the transition was not necessarily very easy. Former Lively users have expressed occasional discontent about other virtual environments for being, for instance, too complex or impersonal [e.g. Livelypeople, 2009c, i]. In order to reproduce the original Lively experience, a group of Lively enthusiasts (backed up by an undisclosed Chinese company) opened a Lively-look-alike called New Lively that raised enthusiasm among Lively users [Bruce, 2008c]. Livelypeople members have worked also on a New Lively based project called Livelyworld (pseudonym), a "new virtual environment for Livelypeople" [Jordan, 2009; Livelypeople, 2010b; Herb, 2009]. Individual Lively users have participated in both efforts by providing material and ideas [e.g. Livelypeople, 2009i, c], but since mid-2009, only a few progress reports and updates have been published [Livelypeople, 2009a, 2010d, c].

The activity of the Lively communities slowed down considerably after the fierce campaigning and community activities in late 2008 and early 2009. In spite of this, the Livelypeople Administration team assured the world at large in January 2010 that the "collaboration" would continue [Livelypeople, 2010b].

Discussion

Google Lively did not become a "Second Life killer" and it is equally apparent that the service was not successful according to the criteria of Google. However, Lively was not completely unsuccessful as a community platform in as far as to the idea of the ultimate failure of a virtual community is the absence of social space (Malaby, 2009). Google Lively was launched as an interactive environment and even if the initial blog post did not make any direct references to virtual communities, it is clear that the principal aim of the software was to facilitate socialisation and social knowledge exchange. As Croon and Ågren (1998) pointed out, technology is not a virtual community *per se*, but it is apparent that within Lively, a group of active Livelians formed a very real albeit short-lived virtual community during the period of activism that fits the frequently cited definitions of virtual (Rheingold, 1993) and the internet communities (Brown and Duguid, 2000). The definitions are equally apt for describing the major sub-communities Livelypeople and Digiguys. The communities were web-based social aggregations that fostered socialisation and knowledge exchange and shared activities. Similarly, both Lively and Livelian communities may be described as information neighbourhoods (Burnett, 2000) because of the diversity of information shared on and about Lively in the different phases of its lifespan.

Lively as an infrastructure

The analysis shows two major reoccurring themes that influenced the formation and sustainability of Livelian communities and the practices of information sharing in

Lively. First, on the basis of its biography, Lively can be described as an infrastructure with a distinct set of qualities. The outspoken intention of the creators of Lively was to deliver an environment that was fun to use. Niniane Wang (2008) made a specific point of underlining how Lively allowed people to express themselves in less static and a more fun way than before using words together with 3D graphics and real-time avatar animations. Lively augmented its chat-based knowledge exchange by providing two additional modes of communication and the essentially very subjective sense of "fun".

It seems that the "fun" was paradoxically both an asset and a liability for Lively, both from the technological and the information sharing perspective. Even if "fun" is not information (or knowledge) *per se*, it is apparent that Livelians saw it as a meaningful proxy of knowledge exchange. "Fun" enabled Livelians to engage in community membership and information sharing on a different, emotionally more meaningful level than in other environments. In technological terms of being easy to use, "fun" has been identified in the literature to be an important contributing factor to the success of virtual community platforms (e.g. Lin, 2007; Hsu and Lin, 2008). The relatively easy installation procedure and the lack of complicated controls or functions led many users to perceive Lively as easy to approach, "comfortable" (in terms of Rothaermel and Sugiyama (2001)) or "fun" to use. Livelians also tended to see some of the limitations of Lively as a part of the "fun" (or comfort) of the environment. They appreciated Lively focusing on its distinct characteristic style of "play" (as in Pearce and Artemesia, 2009), social knowledge exchange in the form of conversations and chatting, and for encouraging emergent creativity among its users. In the context of Uru, Pearce (2009) observed that both contributed to the success and sustainability of the Uruvian community.

At the same time, the very fact that Lively resembled earlier virtual environments, but with unconventional controls, lacking many typical features of virtual worlds, was unstable and was marketed as a synthesis of the web and 3D environments was bound to disappoint many experienced users of virtual environments. The phenomenon has parallels in the earlier literature. The importance of following design conventions has been demonstrated as important to expert users (e.g. Lyytinen, 1988). Novices and users from other cultural backgrounds may, on the contrary, benefit of not adhering to established but possibly highly artificial conventions (Joshi and Lauer, 1998; Irani *et al.*, 2010). In terms of information systems success (Seddon, 1997; DeLone and McLean, 2003) and TAMs (Venkatesh and Davis, 2000), respectively, the perceived system quality and ease of use were higher for novices than virtual world veterans in Lively. Accordingly, in terms of "fun", Lively was clearly more frustrating than funny for many experienced users.

The poor system quality and usability together with the subjective lack of "fun" were not only questions of infrastructural quality. They affected also the composition and evolution of the Livelian virtual communities and their characteristic activities. As Cheung and Lee (2009) note, satisfaction is directly related to commitment and the intention of continuance in virtual communities. Although the present data cannot provide definite evidence, it was observed that a majority of the analysed texts were written by self-described novices. Therefore, it seems probable that virtual world novices formed a considerable part of the user population of the service together with a minority of virtual world veterans who shared the particular idea of "fun" represented by Lively. It seems safe to speculate that if Lively had attracted more virtual world veterans, the environment and the dynamics of the community would have turned out to be very different.

Besides the "fun", the second infrastructural aspect of Lively is related to its developer, Google. The rumours of a forthcoming Google 3D world had raised expectations that were clearly not met when Lively was launched. The feedback loop of the Seddon information systems success model (Seddon, 1997) highlights the significance of the sequence of expectations, information system use and consequences of prior systems in the context of measuring the subjective success of a new system. Experiences of earlier virtual worlds and Google products added up to a set of expectations that could not be met by a product that was entirely different than was anticipated. Expectations gave rise to some commentators being optimistic about Google's ability to make something interesting out of the (from their point of view, failed) infrastructure, but in general, experienced users were disappointed.

The event of closedown

In addition to the infrastructure, the second major factor that affected the formation and sustainability of Livelian communities and the practices of information sharing in Lively was the event of closedown. Even if some Livelian communities such as the Lively Artists had already established themselves during the autumn of 2008, the analysis of the empirical material showed that the general idea of a community of Lively users emerged first after the announcement of closedown which was published in 19 November 2008. There is no evidence that an idea of the "community of Livelians" existed before the protests. The imminent closedown was a crisis and acted as a catalyst that raised general awareness of Lively as a meaningful dimension in the lives of some of its users. According to the observations of Pearce (2009), the closedown of Uru Prologue acted as a similar catalyst that cemented the Uruvian community. There are also many parallels in both virtual and physically based contexts where an organisational change has shaped, reproduced and consolidated communities (e.g. Rheingold, 1993; Shorter, 1971) and functioned in a sense, as a Kuhn (1970) paradigm shift (Simsek and Louis, 1994). Gazan (2009) describes this as a "critical point of evolution of an online community" when people change their focus from topical information exchange to socialising. Even if the closedown triggered a process of community formation that engaged Lively users not only within existing virtual and non-virtual communities of users, it needs to be stressed that the "Livelians" of the analysed material represent only a small fraction of those users who logged in sometime during the summer and autumn of 2008. Similarly to how the Uruvians identified themselves as the inhabitants of Uru in the study of Pearce even if they were not representing the entire population, calling oneself Livelian was also a self-described identity rather than an evidence of the existence of a single community of all users.

Besides the announced closedown as an imminent and later an actual event, it is impossible to pinpoint a single factor that could have started the community formation process. The announcement text "Lively is no more" (The Lively Team, 2008) was bound to have an effect. It contains an idea of the existence of a common meaningful experience in passing that encourages people to engage in active memory practices (Bowker, 2005) by "capturing" their "hard work by taking videos and screenshots of" their "rooms" (The Lively Team, 2008). It was an obvious common point of reference that articulated the existence of a shared experience of "hard work". The hard work also seemed to transform into a value shared by the active Livelians that cemented their mutual bonds and rationalised their efforts to save Lively. Even though the protesting Lively users explicitly expressed that their intention was to aggregate their experiences and views about why Lively should be kept alive, the process was part of

the process of constructing memories that created the emerging community as a real entity. The acts of protest, organising parties and writing appeals became laden with ritualised meanings in the sense that Durkheim (1990) described the religious forms of activity in the everyday life. As Krieger and Müller (2003) have suggested, the significance of these newly emerging ritual acts is that they recreated Livelian communities as shared entities and strengthened the idea of "us" as the people of Lively.

Another outcome of the active engagement in the construction of a collective memory was the idealisation of Lively and an emerging sense of nostalgia. Livelians began to see Lively in similarly attractive and meaningful terms as users perceived an old virtual community system in the Goméz' (1998) study. The sense of nostalgia functioned as an incentive to "use" Lively independent of any explicit practical needs. Livelians stayed in their rooms until the last possible moment and attempted to recreate Lively, in a nostalgic sense, their original and the best possible environment. In essence, Lively became more important for its users when its absence was imminent than it had ever been before. Lively became an idealised place of origin for Livelians similarly to that what Uru had been for Uruvians (Pearce and Artemesia, 2009) and countries of origin are for non-virtual immigrants (Akhtar, 1999). It is also possible to make tentative parallels with the decline of the number of references to Lively after the closedown, the emergence of discussion in new environments also parallels the acculturation processes in physically based immigration (Berry, 2001). The most striking evidence of integration into a new environment is the declaration of Digiguys that "in many ways we've got a better situation".

In addition to the emergence of memory practices (as a shared informational activity), the activism to keep Lively online played an equally focal role in the formation of the community. The methods used by the community of Livelians have many similarities with the behaviour of the user communities of other virtual worlds (e.g. Pearce and Artemesia, 2009; Smith and Paquette, 2010) and also physically based examples of virtual collective action (e.g. Mele, 1999). The organisation of the campaign differed between Livelypeople and Digiguys largely because of the differences in their leadership and community structure, but the outcomes were highly similar and probably inspired by earlier examples of civic involvement. The emergent wave of volunteerism strengthened the ties of the communities and contributed to their success as communities (as in Lave and Wenger, 1991) even if their efforts were not effective in convincing Google to support the service. In this case volunteerism was primarily a community asset that strengthened the mutual sense of belonging and unity. Although volunteerism has been shown to yield instrumental benefits (e.g. Ginsburg and Weisbund, 2002; Lave and Wenger, 1991), the case of Lively confirms earlier findings that volunteerism is related only indirectly to the emergence of such benefits for the community or the operator of the community platform. As Ginsburg and Weisband (2002) carefully formulate, "volunteerism *can* make a difference" (emphasis added).

The announcement of the closedown had a deep impact on the practices and focus of knowledge exchange within the Livelian infrastructure. Lively evolved from being an instrument of knowledge exchange and an object of negative critique to becoming an idealised place for information sharing. At the same time, Lively became explicitly a hub in a network of multiple information channels used by the Livelian communities. The communities used a wide array of media to reach wide audiences and to share and organise information and activities as efficiently and conveniently as possible. The use

of multiple channels has parallels in the colloquial practices of internet use and information seeking that is often based on the use of multiple channels (Boyd, 2004) and had similar consequences to the communities that have been documented earlier by Pearce (2009), Rothaermel and Sugiyama (2001) and Lin (2007). The use of multiple channels (both online and offline) raise awareness of the community and increase the embeddedness of participants in their own virtual communities.

During the period of activism, the active Livelians developed also distinctly Livelian approaches to sharing information in the form of parties, gatherings and various types of room designs. All of these practices have parallels in other environments (Pearce and Artemesia, 2009; Nardi, 2010), but at the same time they were distinctly Livelian because of the way they were rooted in the infrastructural characteristics of Lively. The evolution of these strategies also affected the custom of information sharing assumed by the community in their new homes after the closedown. In contrast to Uruvians who identified themselves as problem solvers, Livelians saw themselves as a conversational community. The Livelian custom of conversational and visual information sharing and socialising in form of parties transformed to an informational code that was reproduced in other virtual environments. Uruvians form a parallel with their attachment to Uruvian customs and objects. Even the expressions of communality and grief (e.g. in the form of poetry, discussions and staying online to the last minute) resembled each other (Pearce and Artemesia, 2009, p. 91).

Virtual "homeland"

The final observation made during the analysis is that the case of Lively suggests a need to reconsider the use of various virtual community-related terms. Even if the Livelian groups can be described as distributed communities (Lave and Wenger, 1991) they had a single (virtual) geographical "homeland" (using the term coined by Pearce and Artemesia, 2009) until Lively was closed. Therefore it makes sense to make a distinction between the notions of distributed community and virtual community. Livelypeople became a distributed community par excellence by establishing simultaneous presences in Second Life, IMVU and New Lively. Because of its physically based nature, Digiguys migrated as a single entity and retained its nature as a non-distributed virtual community.

Simultaneously with the (virtual) geographical diaspora (Pearce and Artemesia, 2009), Livelypeople changed from being a community based on a shared interest to a community based on a common social background. Former users of Lively shared an idea that Lively was significant that was articulated by expressing loss and remembrance of Lively as a past third place, "a great good place" quoting the phrasing of Oldenburg (1999). Even if Livelypeople are (according to their own writings) in their physically based context socially very different from each other, they share a tangible albeit virtual social attribute of being former users of Lively. It may be assumed that this type of a virtual social identification may be an equally significant form of communality as physically based social proximity. Even if many virtual communities tend to be based on shared interests, the present and earlier documented examples of such (e.g. Uru in Pearce and Artemesia, 2009) seem to suggest that the experience of abolition of a virtual homeland and consequent immigration forms a social bond that may become more important than the original motivation that brought the community together. The evidence of the Livelian communities seems to suggest together with the observations of Pearce that the closure of community platforms should probably be seen in a largely positive light from the perspective of community evolution rather than as a moment of loss.

Implications

The findings of the present study have several implications for the future design of virtual infrastructures and sustainability of virtual information sharing communities. The recurrence of memories and past activities in the material suggests the potential importance of, first, fostering memories and a sense of common history. Considering the popularity of gaming worlds with fictional pasts, the present findings might suggest that engendering a sense of shared history, memories and a "heritage" could well be exploited in the design and fostering of virtual communities. Even if heritage and history are constructs, they cannot be imposed, but generating a series of events and memorable and common historical landmarks for the user population might help to nurture the emergence of a salutary historical perspective.

The second implication is the potential usefulness of a crisis. Because of the negative implications of crises, it might be counterproductive to submit community members to trials of biblical proportions. The emergence of community initiatives in Lively, Uru and Second Life in times of change suggests, however, that a crisis brings people together, urges them to act and if met with respect, fosters an idea of a shared ownership and control of the infrastructure. A crisis is (in terms of Gazan 2009) a critical point of community evolution with a capability of shifting focus from topical discussions to social exchange. Earlier studies of virtual communities provide strong evidence that a sense of autonomy and genuine authority to make decisions on various matters relating to the infrastructure is related to a continued willingness to participate and engage in the community (e.g. Porra and Parks, 2006). The significance of a crisis is that the users are potentially provoked to seriously consider the role of the community and community platform in their lives and to seize an opportunity to solve the crisis. Threats are likely to alienate part of the user population, but a considerate discussion with the remaining population may have a positive effect. The creative use of minor crises, coupled with a possibility to engage users in a dialogue, might be beneficial for the dynamics of virtual communities rather than assuming a non-engaging policy of appeasement.

Third, the tension between first-timers and virtual world veterans has some implications for the involvement of different groups of users. It is unlikely that a specific focus on either inexperienced users or veterans is a key to success *per se*. Both expert- and novice-oriented communities can be successful, and eventually after prolonged involvement, novices tend to be become experts anyway. It seems that the relative absence of experts made Lively an explorative platform and much of the fascination of the environment for the first-timers (soon to become experts of Lively), was the (again relative) simplicity of the available controls and the lack of colossally complicated examples of the state of the art. In Lively, a novice could become an expert in a relatively short time. In Second Life, the popularity of the service was based on a lengthy period of involvement by pioneering users who succeeded in using the tools provided by the Linden Labs to create attractive consumer services for the novice users who entered Second Life from 2005 onwards (Malaby, 2009, pp. 112-113). The frailty of Lively was probably that the number of novices who enjoyed becoming the elite of the technically limited sandbox was rather low and equally limited was the number of "consumers" who were impressed by the environment and the expertise of this emerging elite. It may be speculated that the size of a virtual community is related to size of an emerging "elite" and its capability to provide meaningful "services" for itself, and to the capacity of the "services" to attract users and participants outside the elite. In Second Life, the initial work at the Linden Labs and the active community

members attracted a relatively large number of "consumers", but as the apparent failure (Linden, 2011) of the more recent and largely unsuccessful attempts to orient the virtual world towards consumers might suggest, the limits have been reached. In other types of virtual communities, similar dynamics have been highly successful. For instance, in Wikipedia, the elite has been able to engage a huge number of users to make an occasional contribution and especially to use the free encyclopaedia. In practice, it may be suggested that both novices and experts, and especially genuine opportunities to become an expert are needed for a successful virtual community. The explanation resonates with the earlier findings on the factors of sustained participation in virtual communities by combining the opportunity for self-discovery, the availability of tools and techniques and a perceived purposive value (Rothaermel and Sugiyama, 2001) to the emergence of community factors (Widén-Wulff, 2006; Ardichvili, 2008). An apparent weakness of Lively was that the platform attracted only a relative small number of prospective experts and their followers.

Finally, the findings imply that the identity of the community platform makes a difference. The notion of "fun" made Lively distinct together with a focus on a conversational mode of socialising and information sharing. Even if the analysis made it clear that the fun was paradoxically both an asset and a frailty because Lively failed to attract large numbers of users, the distinctive identity of the environment made it meaningful for Livelians. Even if it might seem to be safer to try to attract a generic population, attracting a niche that shares a particular idea of fun or a preference for a certain style of communication and information sharing might be a useful strategy to foster for successful virtual communities. Niniane Wang's initial blog post framed the idea of Lively and provided an initial rationale for participation even if the message was not taken perhaps as literally as it should have been by the critics of the service. The examples of Lively and the success of Second Life in the mid-2000s with the focus of Linden Labs on providing tools for creative users (Malaby, 2009, p. 57) underline the significance of outspoken (literally, or in the form of the infrastructure and its governance) assumptions of how a virtual community infrastructure should work can make a major difference. The question remains, of course, whether the chosen identity is capable of attracting enough users to make the endeavour worth the investment (considering the objectives, whether financial or other) for the sponsor of the community platform.

Conclusions

The analysis of the case of Google Lively, a defunct virtual community platform, demonstrates that even if individual services within the internet are not necessarily sustainable, the internet itself is sustainable as a platform for socialisation and knowledge exchange. The internet is not only sustainable as technology, but also in the community sense, much like it was built to be in the beginning. Emigration from a defunct community service such as Google Lively to other platforms may strengthen social ties of the community members. The community develops an idea of a virtual homeland and evolves from a single virtual location-based community to a true distributed community that functions simultaneously in different services in the internet. Communication and sharing of information is such a fundamental part of humanity (in terms of Gadamer, 1992) that the unsustainability of internet-based arenas of participation does not affect socialising and information sharing *per se*. However, it is apparent that a change of platforms and migration does affect the predominant modes of information sharing and the information that becomes shared.

It seems that even if Lively had been successful in fostering community building among groups of active participants, many of its advantages were simultaneously disadvantages from the perspective of the audiences it failed to attract. Lively also suffered from not being able to meet the expectations of being a Second Life killer. The modes of information sharing and socialising that were emphasised in Lively seem to have made perfect sense for active Livelians. The technical limitations, unconventionality and the vague and subjective idea of "fun" made it difficult to approach for many of the more experienced users of virtual environments. If some of its technical limitations and comparisons to dissimilar virtual worlds could have been eliminated, Lively might have become significantly more successful. The paradox of Lively was that as a community platform, it became successful first when it was announced that it was to be closed down. The sense of loss and consequent nostalgia probably made Lively more important for some of its users than it had ever been during the preceding months. This did not apply to all of its users, but a large enough group that developed a sense of belonging and an idea of being a "Livelian". Lively established itself as a definite "great good place" for a group of its users when it ceased to exist.

The findings imply that a closer focus on: first, fostering the emergence of a shared experience of the past among the users of a virtual community platform and the, second, creative use and management of minor crises in developing community dynamics can be significant contributors to the success of community platforms and communities acting on the platforms. In addition, the findings suggest that, third, Lively was successful in providing opportunities for achievement and self-development for relatively inexperienced virtual worlds users while it was dismissed by most virtual worlds veterans. It seems likely that the number of prospective experts and casual users impressed by their work and the capabilities of the environment did not sustain a population of users that would have been large enough for Google. Finally, the paradoxical success and failure of introducing Lively as a "fun" way of experiencing the web underlines the, fourth, significance of a distinctive identity of a virtual community infrastructure for attracting and sustaining a user base.

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Appendix

Survey questionnaire No. 1 (2008)

1. How would you describe Lively for someone who has not heard about it? (How is it distinct from other 3d virtual environments?)
2. Why did you participate in Lively and what have been its most significant aspects of for you?
3. What are the most important things you do/did in Lively?
4. How important Lively has been for you? (1 = unimportant, 5 = very important)
5. Have you decided that you will be moving to another service after Lively will be shutdown or have you already moved?
    a. If you have already moved, please specify where
6. Have you decided that you will be moving to another service after Lively will be shutdown or have you already moved?
    a. If you have already moved, please specify where
7. Your age?

8. Your gender?
9. Your highest completed education
10. Please indicate your current profession

Survey questionnaire No. 2 (2010)

1. Your gender?
2. Your age?
3. What is your education (highest acquired degree)?
4. What is your country of residence?
5. What impact (e.g. practical, emotional, social) Google Lively had or has on you when you think it at the moment two years after the service existed?
6. How would you describe Lively for someone who has not heard about it? How was it distinct from other 3d virtual environments?
7. Estimate the number of new friends/colleagues/contacts you met during your time in Google Lively?
8. Do you feel that you were part of a "community" within Lively that did not exist anywhere else? (1 = Strongly disagree, 5 = Strongly agree)
    a. If yes (i.e. you chose anything else than 1 for the last question), does the same community exist somewhere else at the moment (e.g. some other virtual platform/world or social media service) or did it exist some time after the service was closed?

Corresponding author
Dr Isto Huvila can be contacted at: isto.huvila@abo.fi