
This is an electronic reprint of the original article.
This reprint may differ from the original in pagination and typographic detail.

Harviainen, J. Tuomas; Lehtonen, Miikka J.; Kock, Sören
Timeliness in information sharing within creative industries. Case: Finnish game design

Published in:
Journal of Documentation

DOI:
[10.1108/JD-12-2020-0207](https://doi.org/10.1108/JD-12-2020-0207)

Published: 03/01/2022

Document Version
Publisher's PDF, also known as Version of record

Published under the following license:
CC BY

Please cite the original version:
Harviainen, J. T., Lehtonen, M. J., & Kock, S. (2022). Timeliness in information sharing within creative industries. Case: Finnish game design. *Journal of Documentation*, 78(1), 83-95. <https://doi.org/10.1108/JD-12-2020-0207>

This material is protected by copyright and other intellectual property rights, and duplication or sale of all or part of any of the repository collections is not permitted, except that material may be duplicated by you for your research use or educational purposes in electronic or print form. You must obtain permission for any other use. Electronic or print copies may not be offered, whether for sale or otherwise to anyone who is not an authorised user.

Timeliness in information sharing within creative industries. Case: Finnish game design

Finnish game design

J. Tuomas Harviainen

*School of Communication Sciences, Tampere University, Tampere, Finland and
School of Arts, Design and Architecture, Aalto University, Espoo, Finland*

Miikka J. Lehtonen

*Dubai Institute of Design and Innovation, Dubai, United Arab Emirates and
Rikkyo University College of Business, Tokyo, Japan, and*

Sören Kock

Management and Organization, Hanken School of Economics, Helsinki, Finland

Received 1 December 2020
Revised 27 January 2021
Accepted 9 September 2021

Abstract

Purpose – This article aims to examine instances of timeliness and temporality in information sharing conducted by members of the Finnish game design community. By doing so, it provides new knowledge into the ways in which organizational information practices may take place on an individual and interpersonal level, and the ways in which timeliness impact information sharing.

Design/methodology/approach – The article is based on three sets of interviews, gathered in 2012–2014, 2017–2018 and 2018–2020.

Findings – The authors identify six themes of information sharing and show that time is strongly tied to the ways in which people in the Finnish game development industry share information outside of their own companies.

Originality/value – This type of information sharing has not been previously researched. This study brings forth new knowledge on how timeliness influence information sharing within creative industries.

Keywords Temporality, Game design, Information sharing, Games, Timeliness

Paper type Research paper

Introduction: time, information and games

In this article, we discuss the ways in which time, timeliness and temporality affect information sharing between Finnish game design companies. As a business field, game design and development is usually highly secretive, in a manner similar to many other high-tech industries (O'Donnell, 2014). It is also timely because games rely on certain release times, development trends and monetization options in getting potentially popular (Kultima, 2018; see also Vesa *et al.*, 2017). If a game arrives on the market during a time when heavy competition exists, it may fail as a business venture no matter how good it actually is. Examples of this have existed for decades. For instance, people playing massively multiplayer online role-playing games (MMORPGs) would not switch away from games like *EverQuest* or later *World of Warcraft* to other MMORPGs because that would have meant leaving social play and friends behind (Lehdonvirta and Castronova, 2014). Likewise, when *Farmville* was at its most popular, its success was closely tied to its presence on the social

© J. Tuomas Harviainen, Miikka J. Lehtonen and Sören Kock. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at <http://creativecommons.org/licences/by/4.0/legalcode>



media platform Facebook (Harviainen *et al.*, 2019). Time and (market) information are intrinsically connected.

Game design often takes place in waves, where one game type's success creates demand – but also a fierce competition – for certain types of games. There was once a time for solo point-and-click adventures, for MMORPGs, for farming games on Facebook. Most recently, a trend has existed for location-based games, with *Pokémon GO* leading the charge (and without it having seen financially successful challengers yet, despite the application of high-profile intellectual properties like *The Walking Dead* and *Harry Potter*). During these development phases, the industry has seen many very interesting applications come and go (Lehdonvirta and Castronova, 2014; Montola *et al.*, 2009; Kultima, 2018), but for something to catch on, the timing, marketing and quality all have to be right at the same time. Simultaneously, however, it is quite rare that a game is able to enter a completely “blue ocean” market that has no existing competition (as per Kim and Mauborgne, 2004). Customers tend to go for things similar to those that they already like. However, when a game succeeds in this type of trailblazing, as e.g. *EverQuest* and *Angry Birds* did, whole new sub-fields emerge. Few of these hits are the first of their kind, but with the right time and the right design, massive changes in market demand can happen.

This carries over to the game development industry itself. It appears and often is lucrative to ride on existing waves of demand and interest. When one hit game type appears, many other companies try to follow that trend. Most of them spend a lot of time, efforts and money to create a solid competitor, yet fail and fade away. Meanwhile, other companies, many of them either startups or established game companies seeking to diversify, seek other options. Those, too, carry a severe financial risk that the market does not pick them up. Some manufacturers make this situation and the corresponding financial risk, a brand of honor: they are “indie,” like in movie production (Styhre and Remneland-Wikhamn, 2019). As a result, while probably not earning a living with just their games, they may produce some of the most interesting developments in the field. Other companies pick up new technologies, such as blockchain or virtual reality, and push games that utilize those on the market, hyping the supposed added value (e.g. Scholten *et al.*, 2019; Serada *et al.*, 2020). In the meantime, however, other companies settle on seeking to recreate existing genres or even products, hoping to do so with better (or just more attractive) versions. This article is a look at timeliness in the very tight-knit Finnish game development scene, which through cooperation (cooperation between competitors; Bengtsson and Kock, 2000) not only seeks a stronger international market advantage but also has been able to often acquire one (see also Klimas and Czakon, 2018; Rusko, 2015).

The Finnish game development community has several special characteristics. Few, if any, of the companies were founded outside of Finland, even as many of the companies nowadays have many foreign workers in their employ (Lappalainen, 2016), and several have become subsidiaries of international conglomerates. Many of the founders of the first companies that formed the start of what is now locally known as “Skene,” “the scene” (i.e. the Finnish game development community, as a perceived, shared community) arose from the same demo scene of the 1980s. They, therefore, know each other well, and they are still often close friends, or at the very least, allies (Saarikoski and Suominen, 2009; Jørgensen *et al.*, 2017). Many start-ups in the scene are either design studios created by people leaving larger companies such as Rovio or Supercell or are spin-offs from schools and universities that teach game development (see e.g. Komulainen and Sotamaa, 2020). The successes of one company are seen as the success of the community. There is a very strong, wider sense of unity and of “us” in the scene, well beyond just the founders. On the other hand, a tendency for unhappy members to hide their dissatisfaction in order not to appear as difficult also exists due to the still small size of the scene. People tend to switch between companies within a few years, with the result that few secrets stay as secrets for long, and with next to no one really wanting to

cause problems to their own careers. The Finnish scene consists of about 3,200 people in a total of 240 companies (Yle, 2020). All of this leads to a solid, socially tight community.

The Finnish game design community is quite, but not completely, unique also in that its members are, to a large extent and within legal frameworks, allowed to share information with each other at informal events. In Choo *et al.*'s (2008) and Widén and Hansen's (2012) terms, the typical information culture of companies within the scene is one that allows the sharing of information also outside the organization. This stands in stark contrast to the design cultures in most other countries, where such information would be considered trade secrets (e.g. Banks and Cunningham, 2016; O'Donnell, 2014; Corona *et al.*, 2017; Ozimek, 2019). Open information sharing is a process that is sometimes even encouraged by the top management, many of whom know each other from a demo-making scene years before (Jørgensen *et al.*, 2017). They thereby engage very actively in how Bengtsson and Kock (2000) define co-competition – co-operation between competitors, taking place on an axis between full cooperation and full competition, and alternating its position on that axis between times, market situations, teams, and individuals. This kind of flexible co-competition is atypical for creative industries but has also been observed in e.g. certain classic examples from the crafts and fabrics industries (Porac *et al.*, 1989, 1995; see also Weick, 1995). Information sharing between game companies, as well as with their business network partners, enables coordination, better development, and wider markets (Lehtonen *et al.*, 2020). Likewise, information sharing between the developers and their customers makes it easier to improve existing game products and services (Lehtonen and Harviainen, 2016).

To understand why time is so essential to this inter-organizational information sharing, we next discuss the basics of organizational time. Then, we address our data sets and methodology, after which we present our key findings. These are then discussed, and we conclude with a further research agenda on understanding organizational information practices from a time and temporality perspective. By doing so, we add to research on not only the temporal aspects of information sharing but also on cooperative practices in a larger context. Furthermore, our approach also highlights certain ways in which in some professions, information contexts may bridge professional and everyday lives.

We answer the research question:

RQ1. When and through what channels do Finnish game development companies share information with their competitors?

Time is a central factor for understanding organizations (Clark, 1985; Granqvist and Gustafsson, 2016; Johnsen *et al.*, 2019; Lee and Liebenau, 1999). The game industry is known for its connections to time also beyond production schedules and optimal market entry. First and foremost, their products and services include alternative systems of time, ranging from continuous to turn-based, and many much more complex, asynchronous or pausable forms. It is thus often “event time,” instead of being sharedly monochronic (Lainema, 2010 based on Lee and Liebenau, 1999; Clark, 1985). Second, deadlines, the heavily critiqued industry “crunch culture” of periodic heavy overtime work when deadlines approach, and the cyclic, often polychronic nature of many Agile software development methods likewise emphasize the importance of time in the business (e.g. O'Donnell, 2014; see also Waller *et al.*, 1999).

As in many other industries, if relevant information does not arrive on time or if it lacks sufficient history (e.g. documentation on why certain decisions were made), production suffers (Eckert *et al.*, 2001). Insufficient synchronization, therefore, harms the organization (Bluedorn and Denhardt, 1988). Given that organizational time has many aspects, from deadlines to how often something is repeated, and from sequencing to temporal locations where things take place (Lee, 1999), the temporal elements can have multiple variables, and several of the answers discussed in this article referred to those. We next turn to how those answers were collected and analyzed.

Methodology

Our data set consists of 23 long interviews gathered in 2012–2014, 20 short informal interviews gathered at recreational game industry events (IGDA meetings, parties and unconferences) in 2017–2018, and 15 follow-up interviews with respondents from the first interview set gathered in 2018–2020. These were all collected as part of a larger research project into game production ecosystems (e.g. [Lehtonen et al., 2020](#)). The second set dealt specifically with issues of information sharing and was gathered by Harviainen, whereas sets 1 and 3 were gathered by Lehtonen and focused more widely on business networks. Those interviews too, however, also included elements of information practices, including sharing.

The interviews from sets 1 and 3 lasted between 45 and 90 min each. They were recorded and then transcribed, excluding certain parts that the interviewees asked to be removed for private reasons after re-considering the potential confidentiality of the material or their own public image (despite the anonymity of the answers). Interviews from set 2 were conducted live following a discourse-as-interview protocol ([Kvale and Brinkmann, 2014](#)), with Harviainen introducing himself as a researcher, requesting permission to ask certain questions and to potentially use those in research articles. Some of these were also collected during informal chats at events, in situations where Harviainen was known to be a researcher as well as a community member. In these cases, no recordings were made, but after each talk and ascertained permission, Harviainen left the area and made written notes, which were then used.

In cases of unclear or potentially problematic responses, the interviewees or discussion participants were contacted again on a later date. This was done in order to protect the interviewees, some of whom may have had unpopular or communally unacceptable opinions. This follows the principle of ethical proofreading, in which the researcher seeks to minimize harm to informants by assuming that they may get identified regardless of the quality of measures for anonymization, and thus removes as much potentially damaging content from the reporting as possible, even in cases where they themselves may strongly disagree with the viewpoint in question ([Lee, 1993](#)). For ethical purposes, furthermore, all of the interviews in set 2 were conducted during the first hour of the parties and other events, many of which served alcohol, so as not to involve any significantly intoxicated participants.

To understand this three-set process and why it was necessary, a short look into the local events of the International Game Developers' Association (IGDA) in Finland is needed. Formally founded in 2012 but existing informally for several years before that, IGDA Finland is a loose network of individuals from game companies, their staff and other interested parties (affiliates, game journalists, game development students). It does not have any organizations as members and does not function as e.g. a trade union for its members. Its primary function is to provide a community for those within and near the industry. Until the 2020 corona crisis, IGDA Finland organized regular local get-togethers in major hub areas (see e.g. [Komulainen and Sotamaa, 2020](#)), and is likely to do so again as soon as the situation changes. People at these meetings party together, share tricks of the trade and watch technical presentations by sponsors while enjoying a couple of complimentary drinks. These events function as shared celebrations and meet-ups between friends in the trade but also for much of the timely information sharing discussed in this article. Thus, the need to also interview members of the scene during their time off, in one of their natural contexts for informal, interpersonal information sharing.

Interview responses relating to temporality in the three interview sets were coded by Harviainen and then summarized into refined second and aggregated third order themes that arose when the temporality-related responses were clustered for similarities (as per [Lundgren-Henriksson and Kock, 2016](#)). For example, the first-order utterance “We all like to talk about what we’re working on, if we can.” was condensed into the refined second-order category *Sharing information about one’s work and upcoming results is appreciated* and finally aggregated with other similar answers to the third-order category *Industry Gossip and*

Small Talk. Given that in several cases, a single utterance could be classified into several second and third-order themes, the results are presented below as general categories.

Temporality in information game-related sharing

As a result of the coding and the following clustering, we identified several types of temporally organized or time-related information sharing, represented as third-order themes here. Some of these, described below, were organizational. Others were by individuals but apparently performed by either tacit or open company permission. Many of these information-sharing types overlapped. They were also related to company status, size, age, and member connections. As a result, they are presented here in order of prevalence in the interviews. This order does not represent their commonality in the community, however, as many of the interviewees talked about the community in general and/or of their experiences in multiple companies as parts of their careers.

In this article, we take no stance on why the companies engage in these types of sharing or why they permit them for their staff. This is intentional because of the differing sharing motivations in the scene, as well as the importance of the founding myth. These elements require discussion as their own articles. They are referred to here only in cases where a direct correlation between a certain issue of timeliness and the interviewee-reported motivational grounding exists.

Much of the wider literature, especially in the context of business information, uses the concept of *knowledge sharing*. Here, however, we have decided to use Savolainen's (2017) view of *information sharing*: activities in which information is provided. As the examples below show, this is more in line with the multi-level nature of the studied community's information sharing. In only some of the themes here, the actors function on a company level, and much more often, the situation deals with individuals in informal or mixed contexts. We, following Wilson (2010), also believe that knowledge *per se* cannot be directly shared. Nevertheless, due to the professional nature of much of the information discussed here, many aspects of what is called knowledge sharing in the literature can also be detected in the mix, blurring the conceptual line.

For analytic purposes, we have clustered the information sharing discussed in this article into six third-order themes, five of which concern sharing and one that describes situations for information withholding. They arose through the analysis of time-related concepts and words in the data. The themes are contextualized with existing research in order to explain temporal aspects of the practices raised by our interviewees. We provide first-order segments from the interviews as illustrative examples of the practices, but given the free-form nature of the contents and data limits of all three interview sets, do not e.g. discuss how common certain practices are. This is also due to the variance in company size and ecosystem presence (e.g. a major company working with Sony has very different formal information obligations than a two-person start-up does). Because of these variations, we have also chosen to present the findings and to analyze them together.

Organized game ecosystem sharing

Of course, we have to keep the publisher, [platform provider's name] and our investors updated.

The first theme is that game companies need to keep key organizations in their business ecosystems updated on their activities. The updating may take place through official reports, advertisements or personal connections. This theme is not exactly a new finding but needs to be discussed here, nevertheless, to contextualize the other themes. Game companies work in various types of ecosystems or networks (Lehtonen *et al.*, 2020). Like most other major

industries nowadays, they are parts of power-asymmetric value creation systems formed between companies and other organizations in their ecosystems (as per [Ramírez and Mannervik, 2016](#)). They, therefore, have to share information with their partners in those ecosystems. For example, major publishers require updates from development teams (or entire companies), investors want news, and upcoming platform changes (e.g. Sony moving soon from PS4 to PS5 or introducing a new portable console) may affect the creative and productive processes of the developer. Time has its most visible presence in this type of sharing in anticipation of market trends by investors (if the company is publicly traded). It is, however, likewise very influential in also when allied companies warn others about upcoming technological changes.

As noted, this official, ecosystemic reporting is what creates pace for many other types of sharing. It defines at which time certain information becomes public and at which time it may no longer be news, or even worth many retroactive comments (“You guys did a good job on that game back in the day”). Taking place usually within official channels and reports, this area is often threatened by less formal sharing, which is why in many countries, much of the development processes are under non-disclosure agreements (NDAs). This is also where the Finnish scene differs from others the most: informal information sharing is not commonly seen as a threat to businesses but as a communal strength. Nevertheless, certain (often implicit) temporal rules seem to govern when and how much can be said to outside parties, including even friends and colleagues in other companies. These are discussed alongside information withholding later in this section.

Community post-promotion

They promote their stuff as sponsors here often because they want to be seen in the community as game developers, not as a gambling [company]

The second theme is formal information sharing about a game company’s game to colleagues. IGDA Finland events are often sponsored by some game company. In return, they get to promote their own work, usually something either coming very soon or very recently published. What is important for the information sharing in these cases is that the work almost always has to have some kind of novelty value (i.e. be timely) and that this is promotion done for and to fellow designers, coders, and marketers, not the general public. The presentations typically, therefore, contain technical details, production experiences, practical design tips and lessons, and other facts, which are freely shared with supposed competition. The presentations also include questions and answers sessions, where interested parties can ask for more details and then personally talk with the presenters. Other similar sessions of sharing also exist, in the form of, for example, IGDA Leadership Days, in which guest speakers share their best leadership and management experiences in what in Finland tends to be a very flat-hierarchy industry.

While this may at first seem like helping the competition, the temporal aspects of this sharing make it very advantageous for the presenting party. The games are, when presented, newly available. That means that in a community full of people able to retro-engineer ideas from them could do so, should they want. So instead, the companies in question take the opportunity to present their own view on their products, controlling at least some part of the existing discourses. Second, the presentations function as a kind of stress test: convincing other game developers that one’s game is good can be very important for the company identity, especially if sales then do not later go as well as was hoped for.

Finally, this is also planning ahead. By sharing the information on their company’s best practices, the presenters are also presenting their company as an interesting workplace that does cool things. Given the frequency at which skilled experts tend to switch employers

within the Finnish scene, which is in chronic demand of experienced workers of many kinds and constantly needs to bring in talent from abroad, being seen as an attractive workplace is extremely valuable. While direct recruitment of other companies' workers ("targeted recruitment" or, more commonly, "poaching"; [Breugh, 2013](#)) at IGDA parties is not considered acceptable, many of the seeds of future changes are planted at the parties, whether through presentations or personal chatting. They also lead to the creation of informal expertise networks.

Critical tips

The third theme is critical tips, which contain similar elements as the promotional sharing but are usually more specific, go deeper, and address an existing information need. As [Land \(1992\)](#); see also [Ramayah et al., 2014](#)) observed, formal information systems – whether social, "soft" systems or information and communication technologies – tend also to foster the creation of parallel information systems. These are always social, to some extent informal, and work alongside the official tools. Examples of these include regular coffee room talks, hallway discussions, chat channels – and parties. Within the Finnish scene, according to our interviewees, these are present in peer-to-peer help and networking for future help, by way of mentioning one's own findings:

[T]he unity brings also sharing of best practices and such. That's still quite prevalent as far as I know. So if somebody has a problem, you can always call your friends in the next firm and speak with them how they did it, or you can speak in any . . . it does not even have to be a conference. It can just be any event, like there are these Unity events or Unreal events where people show that, "Hey, I did this in this way, and I found out that that was pretty cool."

This is a kind of externalization of knowledge (as per [Nonaka and Takeuchi, 1995](#); [Savolainen, 2017](#)), as well as information seeking from human sources. The informal information sharing, done earlier for reasons ranging from altruistic sharing to personal pride establishes a person as someone "in the know" and thus someone to contact on certain topics later on, if needed (or just to swap stories with at a party one day). This effectively leads to the creation of the aforementioned social systems of information sharing, particularly among more experienced members of the community. The sense of a shared scene and the fact that today's newbie may be your future teammate, however, means that many of the old-timers are quite willing to also give tips to younger designers and programmers, and it is not uncommon to see even company CEOs talking at length with game design students or entry-level people from other companies. This strengthens the sense of community – and again paints a solid picture of the mentor's company as a welcoming, interesting future employer.

According to three interviewees from the second set of interviews, two who were in major positions in Human Resources and the third a high-ranking programmer, it is also not uncommon for Finnish game companies to lend each other expert staff at critical moments. A given example was letting a "competitor" borrow a specialist programmer to solve a particular problem. This, too, both supports community aspects and enables the participating organizations to engage in mutual knowledge sharing (in the deepest sense of that phrase) for eventual shared benefit. And in a community where companies are willing to go this far, the now and then giving of smaller advice persists as a natural habit.

Industry gossip and shop talk

[S]eeing all the other [people] and, I do not know, doing a bit of industry gossip. "What's going on?"

The fourth theme consisted of information sharing related to what is taking place in the games industry, both locally and globally. According to the interviews, the industry

grapevine is at its strongest, if not counting the very topmost levels, at the parties and other meetings. This is where peers (which in the low-hierarchy organizations of the Finnish game industry means a very wide range of people) gather, let their proverbial hair down, and talk about their work and common interests, which is often games. As the community's information culture is favorable to sharing to the extent where secrets are the exception and not the norm, and even the top dogs participate in much of the sharing, information flows quite freely. This is also an area where the contexts of everyday life and business information sharing come very close, as many people in the games industry are in it because they are also gamers and love games.

Moreover, the process is not transactional in the sense that it would be *quid pro quo* but rather that the shop talk comes naturally to people in an industry like this when it is not explicitly forbidden to share something. Nevertheless, people at the parties may tend to be informal, but they are also in what Erdelez (1999) calls the "information acquisition mood," i.e. either actively searching for or mentally primed to accept new information. So, in vernacular, even if the situation is relaxed, "eager ears will usually be present." Given that the information culture of these companies also expects company-internal sharing (as per Marchand *et al.*, 2001), the industry gossip may easily become also organizational information, in the classic sense of Jim March's (e.g. 1991) views of organizations that explore by individual information practices and then exploit that information throughout the organization or at least parts of it.

The timeliness aspect of this sharing appears to be very important for the scene. It allows people on all levels, not just in strategic management, to coordinate what they are producing. This is particularly valuable to small companies that cannot invest in making multiple games at once and, therefore, need to know what else is going on in the scene. But it may also include courtesy notices given to the bigger companies by other major players, saying that something of a certain game type is being produced – even if the details cannot be shared at an early stage. This creates a friendlier atmosphere for all parties concerned but can also lead to very significant savings in resources, which are thereby not spent on planning something that would need to compete with something gotten earlier to the market by a cooperation partner in one's network.

A special case: the startup phase

Free sharing mostly exists at the startup phase. When you've got a company of just two people, you have no one to talk to, so if you want to talk shop, you have to talk to outsiders about your ideas.

The fifth theme is formed by a specific company type and the way it connects to other organizational forms. This was represented by a more critical view expressed by four interviewees. They argued that the defining factor on open, informal information sharing was not company culture but rather the company size. According to these interviewees, the ones most likely to freely share information were the ones without a sufficient number of people for relaxed shop talk or the bouncing off of ideas in their own organizations. As a result, startup founders and workers – whether old hands in the industry or fresh out of a school or university – would be the most likely to share production information and tell what they were working on. In turn, those from the more established companies would stay silent and may be settle for some more general industry gossip and the sharing of technical knowledge.

During gathering the second data set, Harviainen had the further possibility to observe several discussions which, while included in the complete data of the research project, did not directly involve time-related issues. Those observations partially confirm this viewpoint, in that startup members and game design or programming students seemed the most eager to talk about their ideas. Yet, the sharing was not related to just them. What can more reliably be argued is that those employed by more established companies had often developed many

indirect means of handling their information sharing. They would, for example, say that they were working on something “on the line of *Pokémon GO*, but violent and for only mature audiences” and then move on to the technical innovations they were able to share as industry shop talk among peers.

Information withholding

The last theme projects a contrast to the supposed openness. Certain cases of direct information withholding were also reported by interviewees and are also related strongly to time, present interesting exceptions to the otherwise open culture of information sharing. Many of these instances were related to the ecosystem situation of a company. One of the concepts used was that of an “NDA island” in an otherwise free ocean of information sharing. With this, the interviewees meant that certain companies, for one reason or another, had forbidden their staff to share information outside. As one interviewee framed it in the case of a company working at that time with a major intellectual property brand, “We were told: ‘this time, engaging in *any of the usual information sharing with others* is strictly forbidden” (emphasis ours). In other cases, even experienced and highly respected members of the scene no longer had direct access to what was happening in other companies:

To get [non-promotional] information from [major company X], you have to be good friends with someone there

In addition to partner demands, owner demands were also seen as creating NDA islands. Particularly risky moments for this were when a company was sold to a foreign owner or when it issued an initial public offering. The view was that, unlike within the Finnish community, people from other development cultures did not understand the value and advantages of information sharing. If one wanted reliable information from an NDA island, one had to have connections within that company, in a manner similar to how academic paywalls restrict information sharing in certain cases (e.g. [Talja, 2002](#)).

Discussion

These information-sharing practices reflect the way the central unit of the Finnish game design culture is often an individual, not the company ([removed for review]). Because of this, individual programmers, developers, designers and other experts in the community are given much leeway in what they share with their colleagues outside of their own companies. Yet, this sharing is governed by many implicit rules, as well as sometimes also non-disclosure agreements. One of these rules is timeliness. While it, at a quick glance, appears if one visits an IGDA Finland event that it is one shared scene where information flows freely between individuals, this is not always the case.

In line with [Sonnenwald's \(2006\)](#) view, some of this sharing is by request, while some parts are proactive. This is also a temporal aspect (as per [Lee, 1999](#)): Whether one shares the information as a response (sequentially) or of one's own initiative (proactively). The proactive sharing is done for either potential future use or, in the case of “nice to know” industry gossip, in order to foster a general sense of “everyone shares,” and in this indirect way, caters to the sharer's own future information needs. The ways in which several temporal aspects come into play at once in the scene (work/play; “what I work on now”/“what we'll publish in the near future”; “I work on games”/“I also love to play games”) means that not only are the lines between information and knowledge blurred, so are the lines of work-related and everyday life information practices. The “now” of game-related information sharing at a party is influenced by both the “before” and “after” of work-task time, as well as the “before” and “after” of also gameplay that is considered one's leisure time. And to make things even more temporally complex, game designers are known to use their non-work knowledge of games as

a kind of design language, in the style of “let’s make a jump like in Super Mario, but higher” (O’Donnell, 2014).

In contrast to the design researchers studied by Pilerot (2015), information within the Finnish game development scene is not shared for the purpose of reaching a sufficient consensus enabling an elevated understanding of design in the community. On the contrary, many of the purposes above appear to be for the goal of efficient diversification. Choosing the right time and the right information to share helps in this, by creating a polychronic situation where the companies can work together and still compete on the same market, because they are not launching new products, services or updates at the same time, and they are less likely to invest time, effort and capital on things that would be too similar. At the same time, however, the temporal aspects of information sharing create another kind of consensus: “We are a community, and we are in this together.”

This also carries certain risks that will require further research. Many people involved in the scene may be quite affluent in their professional status, but they nevertheless seem to exhibit some of Chatman’s (1991) observed properties for small worlds and even information poverty, especially a reliance on communal sources (again, in the local and the international sense of game development). It might be that the time-related demands and other factors of their companies and shared sense of community may make them partial to certain information sources and audiences over others, also potentially more relevant ones, even if those sources come from within the community.

Conclusions

In this article, we have discussed the omnipresence of timeliness and temporality in game design-related information sharing. Through the use of interview data, we have identified several strands of both research and influence that bear further work. Thus far, it appears that the Finnish game design community not only has a special character in its free information sharing but also that many of its special elements are intrinsically tied to either planning, coordination or opportunity-seeking by its individual and community participants. The Finnish “scene,” as it is called by locals, strengthens its internal ties by active information sharing, in which any information withholding is seen as an exception to the informal rule of openness. The sharing is nevertheless much more tactical at times than would seem at a quick glance.

In this scene, timeliness makes information sharing on the organizational level and between individuals intrinsically connected. At the same time (pun intended), no direct rules, except for specific NDAs, govern this sharing. The community appears to recognize that very few secrets will stay secrets for long due to people changing employers, products getting close to ready, and the sharing of professional, expert advice between individuals in the numerous informal information networks covering the scene. Finnish game companies have furthermore ritualized many parts of the information sharing, a phenomenon which is exemplified by the presentations and Q&A sessions at IGDA events. As a result, the temporal setting of the entire scene can best be described as highly forward planning, yet also aware of the strengths retained from its past. As pointed out by Ramírez and Mannervik (2016), this kind of ability to perceive time and the business environment, and to engage in relevant information sharing with key partners in the company’s networks through several means and on several levels, is a path to likelier business advantage. The numerous successes of the Finnish game development scene display this.

Much more research on the temporal aspects of information practices in creative communities is, however, still needed. It would, for example, be easy to see the information sharing in the described informal situations as an ongoing transactional process, where people take turns in being sharers and receivers (as per Savolainen, 2017), or to think that this

is just passive monitoring and/or information seeking by proxy (as per McKenzie, 2003). This would, however, reduce the role of active sharing done by people for their own enjoyment, interest and community building. A more appropriate approximation would be to see the scene as a community of people, many of whom are information super-encounterers (as per Erdelez, 1999), functioning in an environment where information sharing is not only permitted, but also actively encouraged. Being information professionals themselves – ones focused on the extremely knowledge-intensive work of game production – the super-encounterers are able to pick up cues and clues for “further reference at some point in the future.” The information they pick up may concern anything from a small tip to a large market coordination advantage or even a potential new job two years down the road. As long as the community stays tight and open in its information culture, this time-bound and timely, yet in many ways also time-free information sharing becomes a form of forward planning for the entire scene and makes it much stronger.

References

- Banks, J. and Cunningham, S. (2016), “Creative destruction in the Australian videogames industry”, *Media International Australia*, Vol. 160 No. 1, pp. 127-139.
- Bengtsson, M. and Kock, S. (2000), “Coopetition” in business networks — to cooperate and compete simultaneously”, *Industrial Marketing Management*, Vol. 29, pp. 411-426.
- Bluedorn, A.C. and Denhardt, R.B. (1988), “Time and organizations”, *Journal of Management*, Vol. 14 No. 2, pp. 299-320.
- Breaugh, J.A. (2013), “Employee recruitment”, *Annual Review of Psychology*, Vol. 64, pp. 389-416.
- Chatman, E.A. (1991), “Life in a small world. Applicability of gratification theory to information-seeking behavior”, *Journal of the American Society for Information Science*, Vol. 42 No. 6, pp. 438-449.
- Choo, C.W., Bergeron, P., Detlor, B. and Heaton, L. (2008), “Information culture and information use: an exploratory study of three organizations”, *Journal of the American Society for Information Science and Technology*, Vol. 59 No. 5, pp. 792-804.
- Clark, P.A. (1985), “A review of theories of time and structure for organizational sociology”, in Bacharach, S.B. and Mitchell, S.M. (Eds), *Research in the Sociology of Organizations*, JAI, Greenwich, CT, pp. 35-80.
- Corona, M., Seungio, Y. and Lee, S. (2017), “Patterns of protecting both technological and nontechnological innovation for service offerings: case of the video-game industry”, *Service Science*, Vol. 9 No. 3, pp. 192-204.
- Eckert, C., Clarkson, J. and Stacey, M. (2001). “Information flow in engineering companies: problems and their causes”, in *Proceedings of the International Conference on Engineering Design (ICED 01)*, Glasgow, August 21–23, 2001.
- Erdelez, S. (1999), “Information encountering: it’s more than just bumping into information”, *Bulletin of the Association for Information Science and Technology*, Vol. 25 No. 3, pp. 26-29.
- Granqvist, N. and Gustafsson, R. (2016), “Temporal institutional work”, *Academy of Management Journal*, Vol. 59 No. 3, pp. 1009-1035.
- Harviainen, J.T., Paavilainen, J. and Koskinen, E. (2019), “Ayn Rand’s objectivist ethics applied to video game business”, *Journal of Business Ethics*, Vol. 167 No. 4, pp. 761-774.
- Jørgensen, K., Sandqvist, U. and Sotamaa, O. (2017), “From hobbyists to entrepreneurs: on the formation of the Nordic game industry”, *Convergence*, Vol. 23 No. 5, pp. 457-476.
- Johnsen, R., Berg Johansen, C. and Toyoki, S. (2019), “Serving time: organization and the affective dimension of time”, *Organization*, Vol. 26 No. 1, pp. 3-19.
- Kim, W.C. and Mauborgne, R. (2004), *Blue Ocean Strategy: How to Create Uncontested Market Space and Make the Competition Irrelevant*, Harvard Business Review, Brighton, MA.

-
- Klimas, P. and Czakon, W. (2018), "Organizational innovativeness and cooptation: a study of video game developers", *Review of Managerial Science*, Vol. 12, pp. 469-497.
- Komulainen, L. and Sotamaa, O. (2020.) "IGDA Finland hubs and their role in local game development", in *Proceedings of AcademicMindtrek'20*, January 29–30, 2020, Tampere, Finland. ACM, New York, NY.
- Kultima, A. (2018), *Game Design Praxiology*, Tampere University Press, Tampere.
- Kvale, S. and Brinkmann, S. (2014), *Interviews: Learning the Craft of Qualitative Research Interviewing*, 3rd ed., Sage, Thousand Oaks, CA.
- Lainema, T. (2010), "Theorizing on the treatment of time in simulation gaming", *Simulation and Gaming*, Vol. 41 No. 2, pp. 170-186.
- Land, F. (1992), "The information systems domain", in Galliers, R. (Ed.), *Information Systems Research: Issues, Methods and Practical Guidelines*, Henley-on-Thames Alfred Waller, UK, pp. 6-13.
- Lappalainen, E. (2016), *The Realm of Games : How a Small Nordic Nation Became an Industry Giant*, Neogames, Helsinki.
- Lee, R.M. (1993), *Doing Research on Sensitive Topics*, Sage, London.
- Lee, H. (1999), "Time and information technology: monochronicity, polychronicity and temporal symmetry", *European Journal of Information Systems*, Vol. 8 No. 1, pp. 16-26.
- Lee, H. and Liebenau, J. (1999), "Time in organizational studies: towards a new research direction", *Organization Studies*, Vol. 20 No. 6, pp. 1035-1058.
- Lehdonvirta, V. and Castronova, E. (2014), *Virtual Economies: Design and Analysis*, MIT Press, Cambridge, MA.
- Lehtonen, M.J. and Harviainen, J.T. (2016), "Mobile games and player communities: designing for and with clans", *Design Management Review*, Vol. 27 No. 3, pp. 20-26.
- Lehtonen, M.J., Ainamo, A. and Harviainen, J.T. (2020), "The four faces of creative industries: visualizing the game industry ecosystem in Helsinki and Tokyo", *Industry and Innovation*, Vol. 27 No. 9, pp. 1062-1087.
- Lundgren-Henriksson, E.-L. and Kock, S. (2016), "A sensemaking perspective on cooptation", *Industrial Marketing Management*, Vol. 57, pp. 97-108.
- March, J.G. (1991), "Exploration and exploitation in organizational learning", *Organization Science*, Vol. 2 No. 1, pp. 71-87.
- Marchand, D.A., Rollins, J.D. and Kettinger, W.J. (2001), *Information Orientation: the Link to Business Performance*, Oxford University Press, New York, NY.
- McKenzie, P.J. (2003), "A model of information practices in accounts of everyday-life information seeking", *Journal of Documentation*, Vol. 59 No. 1, pp. 19-40.
- Montola, M., Stenros, J. and Waern, A. (2009), *Pervasive Games: Theory and Design*, Morgan Kaufmann, Amsterdam.
- Nonaka, I. and Takeuchi, H. (1995), *The Knowledge-Creating Company*, Oxford University Press, New York, NY.
- Ozimek, A.M. (2019), "The 'grey area' of employment relations in the Polish videogame industry", *International Journal of Cultural Studies*, Vol. 22 No. 2, pp. 298-314.
- O'Donnell, C. (2014), *The Developer's Dilemma: the Secret World of Videogame Creators*, MIT Press, Cambridge, MA.
- Pilerot, O. (2015), "Information sharing in the field of design research", *Information Research*, Vol. 20 No. 1, paper ISIC26, available at: http://informationr.net/ir/20-1/istic26/istic26.html#X7qleedS_IU.
- Porac, J.F., Thomas, H. and Baden-Fuller, C. (1989), "Competitive groups as cognitive communities: the case of Scottish Knitwear manufacturers", *Journal of Management Studies*, Vol. 26 No. 4, pp. 397-416.

-
- Porac, J.F., Thomas, H., Wilson, F., Paton, D. and Kanfer, A. (1995), "Rivalry and the industry model of scottish knitwear producers", *Administrative Science Quarterly*, Vol. 40 No. 2, pp. 203-227.
- Ramayah, T., Yeap, J.A.L. and Ignatius, J. (2014), "Assessing knowledge sharing among academics: a validation of the knowledge sharing behavior scale (KSBS)", *Evaluation Review*, Vol. 38 No. 2, pp. 160-187.
- Ramírez, R. and Mannervik, U. (2016), *Strategy for a Networked World*, Imperial College Press, London.
- Rusko, R. (2015), "New business model: intentional and unintentional degree one and degree two consumer co-competition in a branch of the Finnish game industry", *International Journal of Business Environments*, Vol. 7 No. 3, pp. 219-241.
- Saarikoski, P. and Suominen, J. (2009), "Computer hobbyists and the gaming industry in Finland", *IEEE Annals of the History of Computing*, Vol. 31 No. 3, pp. 22-33.
- Savolainen, R. (2017), "Information sharing and knowledge sharing as communicative activities", *Information Research*, Vol. 22 No. 3, paper 767.
- Scholten, O.J., Hughes, N.G.J., Deterding, S., Drachen, A., Walker, J.A. and Zendle, D.I. (2019), "Ethereum crypto-games: mechanics, prevalence and gambling similarities", in *Proceedings of the Annual Symposium on Computer-Human Interaction in Play CHI PLAY*, Barcelona, Spain, 22-25 October 2019, pp. 379-389.
- Serada, A., Sihvonen, T. and Harviainen, J.T. (2020), "CryptoKitties and the new ludic economy: how blockchain introduces value, ownership, and scarcity in digital gaming", *Games and Culture*, Vol. 16 No. 4, pp. 457-480.
- Sonnenwald, D.H. (2006), "Challenges in sharing information effectively: examples from command and control", *Information Research*, Vol. 11 No. 4, paper 270.
- Styhre, A. and Remneland-Wikhamn, B. (2019), "The ambiguities of money-making: indie video game developers and the norm of creative integrity", *Qualitative Research in Organizations and Management*, Vol. 15 No. 3, pp. 215-234.
- Talja, S. (2002), "Information sharing in academic communities: types and levels of collaboration in information seeking and use", *The New Review of Information Behaviour Research*, Vol. 3, pp. 143-159.
- Vesa, M., Hamari, J., Harviainen, J.T. and Warmelink, H. (2017), "Computer games and organization studies", *Organization Studies*, Vol. 38 No. 2, pp. 273-284.
- Waller, M.J., Giambattista, R.C. and Zellmer-Bruhn, M.E. (1999). "The effects of individual time urgency on group polychronicity", *Journal of Managerial Psychology*, Vol. 14, pp. 244-257.
- Weick, K. (1995), *Sensemaking in Organizations*, Sage, Thousand Oaks.
- Widén, G. and Hansen, P. (2012), "Managing collaborative information sharing: bridging research on information culture and collaborative information behaviour", *Information Research*, Vol. 17 No. 4, paper 538.
- Wilson, T.D. (2010), "Information sharing: an exploration of the literature and some propositions", *Information Research*, Vol. 15 No. 4, paper 440.
- Yle (2020), available at: <https://yle.fi/uutiset/3-11592858>.

Corresponding author

J. Tuomas Harviainen can be contacted at: tuomas.harviainen@tuni.fi

For instructions on how to order reprints of this article, please visit our website:

www.emeraldgrouppublishing.com/licensing/reprints.htm

Or contact us for further details: permissions@emeraldinsight.com