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

Botero , Andrea; Saad-Sulonen, Joanna

(Challenges and opportunities of) documentation practices of self-organised urban initiatives

Published in:
Participatory Design Theory

Published: 01/10/2018

Document Version
Peer reviewed version

Please cite the original version:

Botero , A., & Saad-Sulonen, J. (2018). (Challenges and opportunities of) documentation practices of self-organised urban initiatives. In O. Devisch, L. Huybrechts, & R. De Ridder (Eds.), *Participatory Design Theory: Using Technology and Social Media to Foster Civic Engagement* (pp. 230-246). Routledge.

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.

For referencing, please refer to:

Botero, A. & Saad-Sulonen, J. (2019). (Challenges and Opportunities of) Documentation Practices of Self-Organized Urban Initiatives. In Oswald Devisch, Liesbeth Huybrechts and Roel De Ridder (eds). *Participatory design theory: using technology and social media to foster civic engagement*. UK: Routledge.

(Challenges and Opportunities of) Documentation Practices of Self- Organized Urban Initiatives

Andrea Botero, Oulu University

Joanna Saad-Sulonen, Oulu University

Abstract

In this chapter, we discuss the documentation practices of two citizen initiatives in Helsinki and the role of current social media infrastructures and artefact ecologies in supporting them. We point out how social media and other digital technologies are important catalysers in the initial steps of both endeavours, providing seeds for documentation practices to emerge. However, as practices stabilize and more information is accumulated, challenges related to access, effective archiving, reach and reuse start to appear. The chapter introduces some implications for social media design and the structuring of participatory design processes linking these areas to the construction of knowledge commons.

Introduction

Helsinki has over the last decade witnessed the emergence of several bottom-up citizen-driven initiatives contributing to the development of a vibrant urban culture. Street parties, new urban gardening opportunities and the creation of bottom up cultural events are some of the examples that abound (Berglund and Kohtala 2016; Hernberg 2012; Botero et al. 2012). Whereas setting up similar activities may seem commonplace in other European cities, it is important to remember that urbanisation in Finland, and that of Helsinki too, is relatively recent (Mustonen 2015).

These efforts have often been supported, and even been made possible by a range of digital technologies; social media being one central support mechanism (Horelli et al. 2015; Poutanen et al. 2015). Social media and digital tools in general have been used by citizens around the world to aggregate and form working groups (Niederer & Priester 2016), coordinate their logistics (Bødker et al., 2016b), and as vehicles for communicating new narratives of the city (Poutanen et al. 2015). However, the uses of social media to reflexively *document* these initiative's own processes has been less discussed (see. Paterson 2011 for an exception), despite the fact that

This is the authors' version of the article. It is included in a volume of the Contributor's own collected papers without charge and without seeking the Publishers' permission provided that twenty four months shall have elapsed since the publication of the Publishers' edition of the Work and that due acknowledgement of the original publication is made.

For referencing, please refer to:

Botero, A. & Saad-Sulonen, J. (2019). (Challenges and Opportunities of) Documentation Practices of Self-Organized Urban Initiatives. In Oswald Devisch, Liesbeth Huybrechts and Roel De Ridder (eds). *Participatory design theory: using technology and social media to foster civic engagement*. UK: Routledge.

information and knowledge sharing are recognised as a key collaboration factors in citizen initiatives (Wang et al., 2015). We build our inquiry on a view of documentation as a socio-technical process (Schoffelen & Huybrechts 2013), and look at the role technology has in supporting citizens' - and their initiatives' - ability to share the information they gather. We also probe if these documentation practices could eventually constitute a knowledge commons (Hess and Ostrom 2011). In doing this we are also interested in linking those insights to the development of participatory design practices attuned to their contribution to commoning (Marttila et al. 2014)

To discuss these issues, we will examine the documentation practices of two citizen initiatives in Helsinki and ask: What are the documentation practices of these self-organised initiatives? What are the challenges that such initiatives encounter in their documentation practices, as they relate to the current social media ecologies in use? What opportunities lie in existing documentation practices?

Framework

The Scandinavian PD tradition emerged in the 1970's as an attempt to address the introduction of IT to the workplace in a democratic manner, by exploring possibilities to give workers control on the technologies (Ehn 1988; Bjercknes et al. 1987). Since then, PD has been applied in various contexts other than the workplace. A particular vibrant area of PD development has been "participatory design for, with, and by communities" (DiSalvo et al., 2013). However, most community PD studies are still built around the idea of the PD designers/researchers as initiators or main facilitators of what eventually becomes a community PD project, with some exceptions, such as Karasti & Syrjänen (2004), where the PD researcher is a member of the community. At the same time the increased visibility of IT use by volunteer-based and civic-oriented communities that act in urban spaces, has given rise to interest in IT-supported self-organisation practices (Saad-Sulonen 2014; Bødker et al. 2016b), whose design characteristics are still only little addressed in PD. We know though, that community decisions on technology (e.g. what freely available technology to use, or what to custom order), as well as everyday tailoring and appropriating practices of existing technologies (e.g. hacks, workarounds and maintenance) are key to the development of the activities (Bødker et al. (2016a). This dynamic shaping of the communities' technological space for action is what Bødker et al. (2016a) refer to as the artefact ecology of a community: "the particular constellation of artefacts that a community owns, has access to and uses in its activities." The artefact ecologies are partly constitutive of the practices of the community and support the documentation of their activities, at least partly. Therefore, we are interested in identifying documentation practices that are done in these types of self-organized initiatives, to articulate the participatory design potential within the community itself.

Community documentation efforts are mostly discussed in collaborative writing endeavours, such as Wikipedia (Bryant et al. 2005), and collaborative coding in Free/Libre and open source

For referencing, please refer to:

Botero, A. & Saad-Sulonen, J. (2019). (Challenges and Opportunities of) Documentation Practices of Self-Organized Urban Initiatives. In Oswald Devisch, Liesbeth Huybrechts and Roel De Ridder (eds). *Participatory design theory: using technology and social media to foster civic engagement*. UK: Routledge.

development. There, documentation has been identified as a key activity, with complicated dynamics (Crowston et al 2007) and sometimes even an invisible, gendered endeavour (Lin 2005). Professional designers and researchers have also discussed the role documentation plays in building a reflective and experimental practice (see e.g. Dalsgaard & Halskov 2012, Gaver & Bowers 2012, Desjardins et al. 2017). Documentation also features in relationship to the maker and open design movements, who understand documentation as pivotal to a new understanding of design work (Abel et al. 2011) and central to the learning experience of makers (Keune et al. 2016). Documentation has also been of interest to strands of design interested in making design processes more tangible and collaborative (see e.g.: Schoffelen & Huybrecht 2013, Marttila & Botero 2013). Through her work on documentation for PD, Schoffelen frames documentation as a socio technical process that enable participants - and others that might access the documentation produced - to learn from the activities and from the processes that are being documented, comment on them, and appropriate them for other goals (Schoffelen 2016 and Schoffelen et al. in Chapter 16 of this book). In this view documentation does not only document results but processes; it can be traced beyond the work of the core team involved, and contains generative aspects in its ability to transfer knowledge and produce new “projects” in other sites (Schoffelen & Huybrecht 2013).

We build on this view of documentation, while also foregrounding the role of particular record keeping activities and archival practices (Featherstone 2000) in the formation of collaborative practices, within citizen volunteer based initiatives. By archival practices, we mean the practices associated with shaping an archive - a repository whose goal is the long-term preservation of data and information (Baker 2017). In this view, project-based collections of documents (e.g. a website) can be seen as “pre-archives” - a step taken in the direction of a proper archive - highlighting the activity's intent in assembling project-related materials. Considering how documentation and (pre-)archival practices make citizen initiatives possible and eventually sustainable, leads us to link these activities to the emergence of what is called a “knowledge commons” (Hess & Ostrom 2007).

Commons are often referred to as resources or resource systems shared and/or generated by a group of people (Ostrom 1990). These resources are at the same time vulnerable to social dilemmas and require that the community develops various mechanisms and rules to sustain them (Hess & Ostrom 2007). Interdisciplinary research on commons is rooted in the study of shared natural resources (e.g. forests, fisheries and/or land) and of the people and social dynamics involved with them. However, since the mid-1990s, scholars have proposed that ‘information commons’ and ‘knowledge commons’ also constitute a relevant subject of study (Frischmann et al. 2014). Knowledge commons are as old as humans, but they have been made more visible by the increased availability of information resources on the internet. In these types of commons, collective action is geared to the creation and stewardship of information resources that are useful and valuable for a community, and possibly to others. Like natural resource commons, knowledge commons also face social dilemmas and challenges associated with

This is the authors' version of the article. It is included in a volume of the Contributor's own collected papers without charge and without seeking the Publishers' permission provided that twenty four months shall have elapsed since the publication of the Publishers' edition of the Work and that due acknowledgement of the original publication is made.

For referencing, please refer to:

Botero, A. & Saad-Sulonen, J. (2019). (Challenges and Opportunities of) Documentation Practices of Self-Organized Urban Initiatives. In Oswald Devisch, Liesbeth Huybrechts and Roel De Ridder (eds). *Participatory design theory: using technology and social media to foster civic engagement*. UK: Routledge.

congestion and free-riding. They tend to follow a logic of abundance and non-rivalry, but are susceptible to new types of enclosure and commodification (Hess & Ostrom 2007).

The concept and the research around commons has attracted the attention of design researchers and practitioners in PD working around the limitation of resource scarcity models in new cultural, social and alternative production projects (see e.g. Björgvinsson 2014; Seravalli 2012; Teli 2015, Marttila & Botero 2016). Both PD and commons literature build upon the capabilities and rights of people to act, negotiate, and decide on their own futures; both traditions are also interested in the potentials and dilemmas of collective action and have an interest in understanding which types of infrastructures could support collective action (Marttila et al. 2014).

Case studies from Helsinki

Our study of documentation practices focuses on two active umbrella initiatives in two neighbourhoods of Helsinki: 1) the Artova association, and 2) the Kallio movement (in Finnish, Kallio-liike). These two initiatives differ in some of their decisions regarding organisational structure but share their intention to promote less-hierarchical and more self-organized modus operandi (Tulikukka 2012). Within each of these initiatives we examine the groups dedicated to urban gardening and the production of street festivals.

Artova is the culture and neighbourhood association of the Arabianranta-Toukola-Vanhakaupunki area of south-eastern Helsinki. The association was founded in 1977. New residential quarters were developed at the turn of the millennium, attracting a younger population. The new residents got involved in the neighbourhood association around 2008, strongly introducing cultural aspects to their activities and novel ideas for communal urban life (Tulikukka, 2012). Artova works through interest groups covering topics, such as dogs, nature, local history, urban gardening, and street art; all initiated by the residents. The groups are given freedom in deciding their activities and ways of working. In this study, we have focused on the practices and artefact ecologies of two of their groups, the producers of the yearly Artova street festival (ASF), and the Artova urban gardeners (AUG). Both groups were consolidated in 2012 with funding and partners enabled through the Helsinki World Design Capital 2012 activities. The ASF, which had 30.000 visitors in 2017, is produced by a core team of 16 people and countless volunteers. The AUG is a local activity in a vacant area allocated to it by the City of Helsinki, with 30 double gardening boxes taken care by 50 gardeners.

The Kallio movement (in Finnish, Kallio-liike) is a well-known informal resident network in Helsinki. Its base is the Kallio district known for its edgy and sometimes rough working-class tradition facing challenges associated with gentrification (Rissanen, 2012). Unlike Artova, the Kallio Movement (KL) is not a registered association. It sees itself as key player in maintaining the tolerance for diversity of the neighbourhood, sometimes in contraposition to the perceived

For referencing, please refer to:

Botero, A. & Saad-Sulonen, J. (2019). (Challenges and Opportunities of) Documentation Practices of Self-Organized Urban Initiatives. In Oswald Devisch, Liesbeth Huybrechts and Roel De Ridder (eds). *Participatory design theory: using technology and social media to foster civic engagement*. UK: Routledge.

“not-in-my-backyard” attitude of the established neighbourhood association. The KL became active in 2011 to protect the bread line that takes place in Kallio every week and since then has produced various action-oriented projects including a block party, collective cooking evenings for homeless people and three urban gardens. They coordinate everything through social media and meet face to face regularly to stir self-organization. Our main entry points are the practices and artefact ecologies of the Kallio block party (KBP) and Kallio urban gardeners (KUG). KBP is produced by more than 50 volunteers and enjoyed by close to 30.000 visitors each year. The KUG is made of 85 gardeners who share 60 planter boxes in 3 public parks designated by the City of Helsinki.

Our study takes ground in our long-term professional and personal engagement in the area of Artova (Botero, 2013; Saad-Sulonen, 2014), and in the Kallio neighbourhood (Marttila & Botero, 2016; Saad-Sulonen et al. 2016), including our membership in the KUG. The work reported in this chapter relies on interviews we have undertaken during 2014-2017 of a) two members of the Artova board, b) an active member of the Artova urban gardeners group, c) two executive producers of the Artova street festivals, d) one of the founding members of the KUG who is also an active member of the KBP, and e) ten members of the KUG, some of which were also active in other groups of the Kallio movement. Additionally, we have followed and observed the way their artefact ecologies are used and have evolved by logging in ourselves into some of their platforms, either after being granted access by the interviewees, or, in the case of KUG, because we are members of the group.

Documentation Practices

Table 1 provides an overview of the artefact ecologies we identified, by listing both the digital artefacts (tools) used and the documentational artefacts produced or stored. As these initiatives operate with little to no resources, it is no surprise that they have assembled artefact ecologies from freely available tools and services, or versions with Freemium models. We took a wide understanding of documentation as already stated. In analysing the materials examined how the documentation was organized and what was the archival strategy implicit in each. We also looked closely at whether the communicational intention of documenting was inside the group or as outreach. In doing this we identified several practices associated to the dimensions of time and outreach.

Letting time do the job

Buried ad-hoc documentation: In digital communication, all interactions leave traces (e.g. logs or written posts within discussion threads). While not necessarily intended to be used beyond the moment of the exchange, they end up playing de-facto documentation roles in the initiatives we have studied. All the groups reported instances of using the “news feed” timeline in FB for coming back to a particular FB post or thread to check what was decided, when it was decided,

For referencing, please refer to:

Botero, A. & Saad-Sulonen, J. (2019). (Challenges and Opportunities of) Documentation Practices of Self-Organized Urban Initiatives. In Oswald Devisch, Liesbeth Huybrechts and Roel De Ridder (eds). *Participatory design theory: using technology and social media to foster civic engagement*. UK: Routledge.

how or when some event was realized in the past. However, as many interviewees have noted, FB posts eventually get deeply buried in the newsfeeds and are very difficult to locate. Similarly, conversations in other media, like instant messaging made during ad-hoc scheduling and real time organization (KBP and ASF use WhatsApp or Facebook chat), are often recalled, but not saved. This documentation is done by everybody that participates, but it is not explicitly recognized as documentation. Its role as a tangible resource for the groups is not established nor there exists any responsibility for creating or taking care of it. It's possible utility to others is even less discussed. Time is the only resource used as an organizing principle and the timeline is de ad-hoc archive.

Chronological copy-pasting: All groups produced new documentation by first copy-pasting existing documents. For example, the ASF group organises their mails on their shared Gmail account, in series of theme-based folders for easy identification and reuse. ASF also documents decisions and goals in minutes of meetings and other planning documents that work as 'How-to' instructions. These are all archived in their Wiki intranet (PBworks) in yearly folders, which are copy-pasted and then edited each year. The KBP group also reuses the documents written for asking permission from the municipality to use public space, or the security plan for the festival, as templates for producing the next version of the block party. The KUG uses a similar strategy when updating How-to documents of internal maintenance tasks, like the instructions for filling the water tanks, which they also purposefully use to introduce new members to the ways of working in each garden. When a new gardening season starts and there are new gardeners, older members comment on the document to make it appear in the timeline again. Those familiar with Facebook might also tag the new members to call their attention. Members producing these types of textual documentation are usually those with previous experiences with documentation. They do not regard the task as much burden, especially if they are used to do it, although it is not something evenly taken care of by all members. In both the KBP and the KUG, it is the FB group "File" feature that is used as an archive.

Photos have also been used to document subtler aspects of the initiatives, beside logistics and rules. In the case of the KUG there is a growing bank of images that document the joys of gardening, the outcomes that can be expected, and even the invisible roles other actors play in the initiative - like for example bees - (see Marttila and Botero 2016). More sophisticated practices related to the use of photos, such as the ones reported in White et al. (2014), were not visible in our cases.

Outreach by using and reusing

Borrowing from somewhere else: Documentation created elsewhere has also had an impact on the formation of the initiatives we have studied. It is common to see links to other resources, such as instructional videos or guidelines made by other groups and found on the internet. For example, in their initial stages, the KUG relied on an urban gardening manual for Helsinki

This is the authors' version of the article. It is included in a volume of the Contributor's own collected papers without charge and without seeking the Publishers' permission provided that twenty four months shall have elapsed since the publication of the Publishers' edition of the Work and that due acknowledgement of the original publication is made.

For referencing, please refer to:

Botero, A. & Saad-Sulonen, J. (2019). (Challenges and Opportunities of) Documentation Practices of Self-Organized Urban Initiatives. In Oswald Devisch, Liesbeth Huybrechts and Roel De Ridder (eds). *Participatory design theory: using technology and social media to foster civic engagement*. UK: Routledge.

produced by Dodo, a pioneering environmental citizen association. The city commissioned this manual, based on Dodo's best practices, to kick-start their support program for urban gardeners. This document was shared early on by the founders of KUG to all members in their FB group.

Documenting for someone else: Documentation targeted outside the group was seen more in its promotional role. The groups focusing on events, such as the KBP and the ASF, have been active at producing and storing photos in openly available collections in Flickr or Facebook. Some of the images are of high quality (some even copyrighted as with Artova) and become quite spreadable, therefore useful at marketing the events. However, marketing is not the only use. The images also act as templates for how events like these look and what resources they use, enabling others to get a better idea of what is needed and to appropriate the ideas. Both groups have also produced short videos of their events and have posted these on their public FB pages. The KUG has also intended to document the process of securing land permits for urban gardens, to help similar initiatives. The public FB page was created partly to share these types of resources. However, lack of time and commitment have not allowed this to materialize.

The clearest example of producing documentation for spreading best practices is the Artova Model. The Artova association, in collaboration with other actors (Panagiotidou 2015), systematically compiled the practices of groups like the ASF and AUG, to synthesise how they work into a shareable model. The model is based on thoughts and processes written by members of Artova groups in the form of blog posts, as well as interviews with active members. The model consists of visualisations, and other shareable information that is published in the Artova Model website. The section dedicated to the ASF, for example, provides information on the scale and the organisation of the event, with e.g. numbers of volunteers, the budget used, and the external partners. The production of the Artova Model received external funding, which enabled activists to dedicate time to consolidate and write the documentation.

Besides documentation practices, these initiatives also rely on other strategies to share knowledge. The ASF for example asks executive producers of previous years to mentor the producer of the coming year giving support and counselling over the phone, via FB chat and face to face. Despite having identified the need to document the mentoring process in the form of a guide, this has not yet been done (Suonsyrjä, 2017). Similarly, in the KL meetings are important knowledge sharing forums of the initiative. There is a clear need to develop more of these, face to face, types of events across similar initiatives, as one of the AUG gardeners expressed in her interview.

This is the authors' version of the article. It is included in a volume of the Contributor's own collected papers without charge and without seeking the Publishers' permission provided that twenty four months shall have elapsed since the publication of the Publishers' edition of the Work and that due acknowledgement of the original publication is made.

For referencing, please refer to:

Botero, A. & Saad-Sulonen, J. (2019). (Challenges and Opportunities of) Documentation Practices of Self-Organized Urban Initiatives. In Oswald Devisch, Liesbeth Huybrechts and Roel De Ridder (eds). *Participatory design theory: using technology and social media to foster civic engagement*. UK: Routledge.

Table 1: Artefact ecologies: digital tools and documentation artefacts of the studied initiatives

Kallio-liike (KL) movement		
Group	Digital artefacts	Documentational artefacts
Kallio urban gardeners (KUG)	Facebook community page (108 likes, 109 followers)	Photos (6 photos, mainly in FBs generic albums: mobile uploads, timeline photos, cover photos, profile pictures), public posts
	Facebook group	Events, photos (no albums; general pictures, instructions, annotated maps), files (incl. list of gardeners and waiting list, minutes of meetings, general information, yearly instructions, tasks and turns for each park), comments to the files
	Doodle then Facebook group's poll feature	Meeting dates and other events
	Shared mobile phone (calls and sms)	Requests for info and answers
	Google Drive (only in the beginning)	Spreadsheets,
	Various picture archiving (Instagram, Picasa, Flickr)	Not shared, used by individual gardeners
Kallio Block Party (KBP)	Website	Embedded YouTube videos, program, map of the area, link to Google form to join as volunteer
	Facebook page (same as the Kallio-liike I page, 16,420 likes, 15,959 followers)	Events, Photos (FB's generic albums as well as albums for different events, including KBP of 2014-2016), videos (incl. some videos from KBP), own posts (incl. KBP), notes (not specifically about KBP), public posts
	Main Facebook event (yearly)	Program (event's detail section), posts (some include pictures and video documentations of the day)
	Several related Facebook events (e.g. after party)	Program, posts
	Facebook groups (closed)	Posts, events, photos, files (incl. organisation and program documentation since 2011) and comments to the files
	Slack (just started)	Planning documents, maps, schedules, minutes of meetings/notes (before in Google drive)
Artova association		
Group	Digital artefacts	Documentational artefacts
Artova urban gardeners (AUG)	Facebook group (closed)	Events, photos (one album for autumn talkoot of 2012), files (map of the garden in Word document, updated version of 2016)
	Email (Gmail)	All correspondence related to garden
	Google Drive	List of gardeners, map of the garden
Artova street festival (ASF)	Facebook group (closed)	Posts
	Facebook community page (public) (5,862 likes, 5,713 followers)	Events, photos (organized in generic yearly albums 2012 -2016), videos (6 of different moments during the festivals), Posts (own and public's post), reviews, Instagram feed from @arabiankatufestivaali
	WhatsApp group	In-the moment exchanges
	Intra (PBWorks)	Resources and documentation since 2011, organised by year
	E-mail (Shared Gmail account)	All correspondence related to the street festival
	Flickr	Photos of the festivals (often better resolution, used for promotional material)
	Instagram(?)	Photos of the festivals
	Twitter	Tweets
	Festival page on Artova website	Current news, maps and program, info, music, street art, children's program, dance, restaurants and cafés, performances and recycling and flea market, circus and acrobatics, local things
	The Artova model (Artovamalli)	The street festival example page and visualisation on the Artova model site
	For mentoring groups: Facebook chat, Intra, phone	Exchanged information (temporary)

Discussion: opportunities and challenges

The artefact ecologies that the initiatives assemble offer a starting point where documentation practices emerge and important information and resources are pooled together, providing considerable opportunities for initiatives with little resources. However, we have found out that documentation is not a central concern for most of the members of the initiatives, but rather an ad-hoc strategy, albeit one central to their self-organization. Documentation practices remain mostly invisible, under-resourced, and are not recognised as belonging to the core of the initiatives' activities. It is performed mostly by those who believe in its importance in keeping the initiatives sustainable beyond dependence on specific people. Paradoxically documenting is also very dependent on the documentation skills of key persons. Everyone relies on and builds upon documentation. The instruction documents, the list of current gardeners, the last year

This is the authors' version of the article. It is included in a volume of the Contributor's own collected papers without charge and without seeking the Publishers' permission provided that twenty four months shall have elapsed since the publication of the Publishers' edition of the Work and that due acknowledgement of the original publication is made.

For referencing, please refer to:

Botero, A. & Saad-Sulonen, J. (2019). (Challenges and Opportunities of) Documentation Practices of Self-Organized Urban Initiatives. In Oswald Devisch, Liesbeth Huybrechts and Roel De Ridder (eds). *Participatory design theory: using technology and social media to foster civic engagement*. UK: Routledge.

permit application letters, or the compilations of decisions made in the last meeting, are all documentational artefacts that allow people to continuously know what to do in a collaborative and self-organized manner. Key challenges nonetheless exist:

1) Facebook is easy, but “not everybody is on Facebook”

For most of the active members of the initiatives, social media technologies like FB are part of their everyday life. It is a common space for interacting with friends, family, and thus an easy and cheap channel to take care of volunteering activities (see also Bødker et al., 2017).

However, others' willing (e.g. for ideological or time management reasons) or unwilling (e.g. some older members not using FB) exclusion from FB frustrates those active on an everyday basis, creating dilemmas. For example, for the key member in charge of the AUG, this is frustrating because she must replicate documentation and information shared on FB to other channels, such as email or text messages. This creates more work and maintenance hurdles for her. Problems with replication of information across channels were also mentioned by the ASF producer. How to integrate social media outsiders, without burdening too much the documentarists, remains an issue for all the initiatives.

2) Chronological collections are easy to achieve, but they are not enough

Timeline oriented document collections are easy by-products of other activities, but they tend to be very ‘uni directional’. Important posts with documentational qualities are difficult to retrieve from the timeline. Because neither FB nor PBWorks wiki free version offer options for arranging collections other than chronologically, citizens clearly miss on the potential to create more dynamic documentation. In the case of the file section of FB groups, naming conventions and tagging people are one of the few available strategies to create an archive. Much could be done if there would be better search facilities and possibilities to curate mixed collections in FB (e.g. to include both FB posts and files).

3) Documenting for all, or for those that need it now?

There is a trade-off then between getting things done and being able to share information to others that are not currently active, but might become in the future. Many of the groups have started working through open FB groups where anyone could join, and where documentation was made openly available, like the KBP. However, they have now created closed FB groups limited to the actual volunteers, because when the groups grew too big, notifications and noise created got in conflict with the actual work. This limited the knowledge sharing potential. Conversely, documentation as means to share knowledge outside the community has been most successful when enough time and resources were dedicated to it. Interestingly, concerns regarding privacy or security of data associated with documentation activities were not fully articulated. For example, for both the producer of ASF and one of the AUG, it was clear that one shouldn't trust Facebook with sensitive material such as lists of members or of artists, which contain emails, phone numbers, or bank account numbers. However, the use of Google Drive, or Artova's intra on PBWorks' Wiki for that same purpose was perceived as safer. Others, like the KUG, have not developed any explicit position regarding that.

For referencing, please refer to:

Botero, A. & Saad-Sulonen, J. (2019). (Challenges and Opportunities of) Documentation Practices of Self-Organized Urban Initiatives. In Oswald Devisch, Liesbeth Huybrechts and Roel De Ridder (eds). *Participatory design theory: using technology and social media to foster civic engagement*. UK: Routledge.

4) Business logics, a pragmatic choice and a possible thread

Platforms like FB have served volunteer-based communities by providing an easy way to have a web presence and gather around a shared interest. However, the opaqueness of their algorithmic logic and business model pose constraints not well understood. Some of the interviewees had noticed that they no longer have accurate knowledge as how the posts spread on the platform or why some information is shown to some and not others. They also commented on increased FB prompts to buy advertisement for their posts, to assure that more people are reached. Some, like the ASF's communication team, are experimenting with analytics to find when and where to post on FB to get maximum coverage for free. Documentation activities that might have been done with the intention of sharing information with others or with each other, end up being lost or discussed as "advertising and marketing" of something. Could it be that documenting inside platforms whose business model is the users' own data and whose logic reinforces marketing models and advertising, limit the vocabulary by which people talk about their civic initiatives? Documentation can be easily commodified by the platforms, without even creating benefits for the communities.

Despite the challenges, the citizen initiatives presented here do engage in practices related to physical urban commons (e.g. the streets and other urban public places where gardening and parties happen) and the potential knowledge commons associated to them (e.g. their digital archives and documentations). Both digital and physical commons are the object of documentation. Pre-archives are created for managing information resources, and these resources contain the seeds of knowledge commons, even when they are targeted for the benefit of the immediate community. In producing and using the documentation through their artefact ecologies, members leave traces for others to continue collaborative work in distributed ways. They also improve the mutual accountability of their actions by the records they provide, and articulate the common rules of their endeavours in the discussions of their posts and other shared documents. They also find ways to share and tell about their initiatives, and get others to join, sometimes even giving concrete resources for others to appropriate and develop further. This work, as most care work, remains unfortunately unrecognized and undervalued (Tronto 2013) and needs to be steered.

Conclusions

Our study of groups of active citizens in the Artova and Kallio areas of Helsinki shows, as other commentators have also observed (e.g.: Foth et al., 2011), that social media can foster civic engagement by providing visibility to concerns and an easy way to organize logistics coordination and pre-archives for their documentation. Particularly salient is the role of platforms such as FB in the kick off phase of citizen-driven activities, as it offers a way to initiate activities and quickly achieve critical mass (Seppälä, 2012; Bødker et al. 2016a). Social media and other digital technologies have been catalysers in the initial steps of both initiatives studied, but as practices stabilize and more knowledge accumulates, challenges started to appear.

This is the authors' version of the article. It is included in a volume of the Contributor's own collected papers without charge and without seeking the Publishers' permission provided that twenty four months shall have elapsed since the publication of the Publishers' edition of the Work and that due acknowledgement of the original publication is made.

For referencing, please refer to:

Botero, A. & Saad-Sulonen, J. (2019). (Challenges and Opportunities of) Documentation Practices of Self-Organized Urban Initiatives. In Oswald Devisch, Liesbeth Huybrechts and Roel De Ridder (eds). *Participatory design theory: using technology and social media to foster civic engagement*. UK: Routledge.

By looking at the documentation practices of citizen initiatives in Helsinki, we have highlighted some of the limitations of relying on this type of artefact ecologies for documenting and the opportunities to strengthen knowledge commons they offer. What are the implications for PD practices?

We know from research on social movements that too much reliance on social media is not useful in creating the needed ties to strengthen action on the long run (Tufekci, 2014). Other means, such as face to face meetings, are also needed, as was the KL movement and the AUG themselves noticed. Mosconi et al. (2017) refer to “hybrid community engagement” as the constant going back and forth between online and face to face interactions, which complement one another. Participatory design approaches attuned to their contribution to nurture commons might offer ways for civic initiatives to explore hybrid interaction possibilities around knowledge sharing. The collaborative development of documentation practices for this would be a key aspect around which the intrinsic participatory design practices of the community can be developed and the social dilemmas made visible.

Documentation within a participatory design angle should strive thus to nurture a knowledge commons, and not just sharing documentation. This means supporting communities to reach a commitment to jointly create and manage a “common pool resource” with recognition for the invisible care work that this entails. However, when approaching this type of work, participatory designers might find that their role is better articulated through membership, by being a commoner. Interventions that are done under a membership model will have different rhythms than the bounded PD projects. We have only been testing the ground in our dual roles as PD designers and community members in the KUG and we recognise the need to develop new models for such practice.

PD approaches may also help bridge a gap in the technical and media literacy found in initiatives. Here the setting differs from e.g. the open source communities, where technical know-how is more homogeneous. These also brings us close to PD's recent interests in seriously considering futures beyond neoliberal structures, and articulating this space as a valid one for participatory design to explore (e.g.: Hakken et al. 2015). This entails possible collaborative work on and around documentation, and PD efforts towards what Korsgaard et al. (2016) refer to as development of computational alternatives. Products and services provided by global corporations are now used en masse, even for supporting commons-sensitive initiatives. What would be relevant computational alternatives to support ways of doing and documenting together that are in themselves alternatives to market-driven approaches? Emerging explorations that aim to give users control and ownership of the artefact ecologies they use, such as platform cooperativism (Scholz & Schneider, 2017), although currently focusing more on issues around paid labour, rather than volunteering, might be one way for PD to contribute.

For referencing, please refer to:

Botero, A. & Saad-Sulonen, J. (2019). (Challenges and Opportunities of) Documentation Practices of Self-Organized Urban Initiatives. In Oswald Devisch, Liesbeth Huybrechts and Roel De Ridder (eds). *Participatory design theory: using technology and social media to foster civic engagement*. UK: Routledge.

References

Abel, B. van, Evers, L., Klaassen, R., & Troxler, P. (Eds.). (2011). *Open Design Now: Why Design Cannot Remain Exclusive*. Amsterdam: BIS Publishers.

Baker, K. S. (2017). *Data work configurations in the field-based natural sciences: mesoscale infrastructures, project collectives, and data gateways* (Doctoral Dissertation). University of Illinois at Urbana-Champaign. Retrieved from <http://hdl.handle.net/2142/98131>

Berglund, E., & Kohtala, C. (Eds.). (2015). *Changing Helsinki? 11 views on a city unfolding*. Helsinki, Finland: Kustannusosakeyhtiö Nemo.

Bjerknes, G., Ehn, P., & Kyng, M. (Eds.). (1987). *Computers and Democracy: A Scandinavian Challenge*. England: Avebury: Aldershot.

Björgvinsson, E. (2014). The Making of Cultural Commons: Nasty Old Film Distribution and Funding. In P. Ehn, E. Nilsson, & R. Topgaard (Eds.), *Making Futures: Marginal Notes on Innovation, Design, and Democracy* (pp. 187–225). MIT Press.

Botero, A. (2013). *Expanding design space(s) - Design in communal endeavors* (Doctoral Dissertation). Aalto University, School of Arts, Design and Architecture, Helsinki, Finland.

Botero, A., Paterson, A. G., & Saad-Sulonen, J. (2012). *Towards Peer-production in Public Services: Cases from Finland*. Helsinki, Finland: Aalto University, School of Art, Design and Architecture.

Bryant, S. L., Forte, A., & Bruckman, A. (2005). Becoming Wikipedian: Transformation of Participation in a Collaborative Online Encyclopedia. In *Proceedings of the 2005 International ACM SIGGROUP Conference on Supporting Group Work* (pp. 1–10). New York, NY, USA: ACM. <https://doi.org/10.1145/1099203.1099205>

Bødker, S., Korsgaard, H., Lyle, P., & Saad-Sulonen, J. (2016a). Happenstance, Strategies and Tactics: Intrinsic Design in a Volunteer-based Community. In *Proceedings of the 9th Nordic Conference on Human-Computer Interaction* (p. 10:1–10:10). New York, NY, USA: ACM. <https://doi.org/10.1145/2971485.2971564>

Bødker, S., Korsgaard, H., & Saad-Sulonen, J. (2016b). “A Farmer, a Place and at Least 20 Members”: The Development of Artefact Ecologies in Volunteer-based Communities. In *Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing* (pp. 1142–1156). New York, NY, USA: ACM. <https://doi.org/10.1145/2818048.2820029>

This is the authors' version of the article. It is included in a volume of the Contributor's own collected papers without charge and without seeking the Publishers' permission provided that twenty four months shall have elapsed since the publication of the Publishers' edition of the Work and that due acknowledgement of the original publication is made.

For referencing, please refer to:

Botero, A. & Saad-Sulonen, J. (2019). (Challenges and Opportunities of) Documentation Practices of Self-Organized Urban Initiatives. In Oswald Devisch, Liesbeth Huybrechts and Roel De Ridder (eds). *Participatory design theory: using technology and social media to foster civic engagement*. UK: Routledge.

Bødker, S., Lyle, P., & Saad-Sulonen, J. (2017). Untangling the Mess of Technological Artefacts: Investigating Community Artefact Ecologies. In *Proceedings of the 8th International Conference on Communities and Technologies* (pp. 246–255). New York, NY, USA: ACM.
<https://doi.org/10.1145/3083671.3083675>

Crowston, K., Li, Q., Wei, K., Eseryel, U. Y., & Howison, J. (2007). Self-organization of teams for free/libre open source software development. *Information and Software Technology*, 49(6), 564–575. <https://doi.org/10.1016/j.infsof.2007.02.004>

Dalsgaard, P., & Halskov, K. (2012). Reflective Design Documentation. In *Proceedings of the Designing Interactive Systems Conference* (pp. 428–437). New York, NY, USA: ACM.
<https://doi.org/10.1145/2317956.2318020>

Desjardins, A., Wakkary, R., Odom, W., Lin, H., & Schilling, M. L. (2017). Exploring DIY tutorials as a way to disseminate research through design. *Interactions*, 24(4), 78–82.
<https://doi.org/https://doi.org/10.1145/3098319>

DiSalvo, C., Clement, A., & Pipek, V. (2012). Communities: Participatory Design for, with and by communities. In *Routledge International Handbook of Participatory Design* (pp. 182–209). New York.

Ehn, P. (1988). *Work-Oriented Design of Computer Artefacts*. Arbetslivscentrum & Lawrence Erlbaum Associates, Inc.

Featherstone, M. (2000). Archiving cultures. *The British Journal of Sociology*, 51(1), 161–184.
<https://doi.org/10.1111/j.1468-4446.2000.00161.x>

Foth, M., Forlano, L., Satchell, C., Gibbs, M., & Donath, J. (2011). *From Social Butterfly to Engaged Citizen: Urban Informatics, Social Media, Ubiquitous Computing, and Mobile Technology to Support Citizen Engagement*. MIT Press.

Frischmann, B. M., Madison, M. J., & Strandburg, K. J. (Eds.). (2014). *Governing Knowledge Commons* (1 edition). Oxford; New York: Oxford University Press.

Gaver, B., & Bowers, J. (2012). Annotated Portfolios. *Interactions*, 19(4), 40–49.
<https://doi.org/10.1145/2212877.2212889>

Hakken, D., Teli, M., & Andrews, B. (2015). *Beyond Capital: Values, Commons, Computing, and the Search for a Viable Future*. Routledge.

Hernberg, H. (Ed.). (2012). *Helsinki beyond dreams: Actions towards a creative and sustainable hometown*. Helsinki, Finland: Urban Dream Management.

This is the authors' version of the article. It is included in a volume of the Contributor's own collected papers without charge and without seeking the Publishers' permission provided that twenty four months shall have elapsed since the publication of the Publishers' edition of the Work and that due acknowledgement of the original publication is made.

For referencing, please refer to:

Botero, A. & Saad-Sulonen, J. (2019). (Challenges and Opportunities of) Documentation Practices of Self-Organized Urban Initiatives. In Oswald Devisch, Liesbeth Huybrechts and Roel De Ridder (eds). *Participatory design theory: using technology and social media to foster civic engagement*. UK: Routledge.

Hess, C., & Ostrom, E. (Eds.). (2011b). *Understanding Knowledge as a Commons: From Theory to Practice*. Cambridge, Mass.: The MIT Press.

Horelli, L., Saad-Sulonen, J., Wallin, S., & Botero, A. (2015). When Self-Organization Intersects with Urban Planning: Two Cases from Helsinki. *Planning Practice & Research*, 30(3), 286–302. <https://doi.org/10.1080/02697459.2015.1052941>

Karasti, H. & Syrjänen, A-L. (2004). Artful infrastructuring in two cases of community PD. In *PDC 2004: Proceedings of the Eight Participatory Design Conference*, (pp.20-30). USA: ACM.

Keune, A., Peppler, K., Chang, S., & Regalla, L. (2016). *The Maker Ed Open Portfolio Project: DIY Documentation Tools for Makers*. Maker Education Initiative. Retrieved from <http://makered.org/>

Korsgaard, H. Klokmoose, C. N. and Bødker, S. (2016). Computational alternatives in participatory design: putting the t back in socio-technical research. In *Proceedings of the 14th Participatory Design Conference: Full papers - Volume 1* (PDC '16), Vol. 1. ACM, New York, NY, USA, 71-79. DOI: <https://doi.org/10.1145/2940299.2940314>

Lin, Y. (2005). Gender Dimensions of Floss Development. *Mute - Underneath The Knowledge Commons*, in *Metamute - Underneath the Knowledge Commons 2* (1).

Marttila, S., & Botero, A. (2013). The “Openness Turn” in Co-Design. From Usability, Sociability and Designability Towards Openness. In *Co-create 2013, the boundary-crossing conference on Co-design in Innovation* (pp. 99–110). Espoo, Finland: Aalto University.

Marttila, S., & Botero, A. (2016). Bees, drones and other Things in public space: Strategizing in the city. *Strategic Design Research Journal*, 9(2), 75–88. <https://doi.org/10.4013/sdrj.2016.92.03>

Marttila, S., Botero, A., & Saad-Sulonen, J. (2014). Towards Commons Design in Participatory Design. In *Proceedings of the 13th Participatory Design Conference - Volume 2* (pp. 9–12). New York, NY, USA: ACM. <https://doi.org/10.1145/2662155.2662187>

Mosconi, G., Korn, M., Reuter, C., Tolmie, P., Teli, M., & Pipek, V. (2017). From Facebook to the Neighbourhood: Infrastructuring of Hybrid Community Engagement. *Computer Supported Cooperative Work (CSCW)*, 26(4–6), 959–1003. <https://doi.org/10.1007/s10606-017-9291-z>

Mustonen, P. (2014) How Helsinki became a trailblazer in urban culture
Chronicling two decades of change. Kvartti, 4/2014. City of Helsinki Urban Facts. Helsinki. <http://www.kvartti.fi/en/articles/how-helsinki-became-trailblazer-urban-culture>

This is the authors' version of the article. It is included in a volume of the Contributor's own collected papers without charge and without seeking the Publishers' permission provided that twenty four months shall have elapsed since the publication of the Publishers' edition of the Work and that due acknowledgement of the original publication is made.

For referencing, please refer to:

Botero, A. & Saad-Sulonen, J. (2019). (Challenges and Opportunities of) Documentation Practices of Self-Organized Urban Initiatives. In Oswald Devisch, Liesbeth Huybrechts and Roel De Ridder (eds). *Participatory design theory: using technology and social media to foster civic engagement*. UK: Routledge.

Niederer, S., & Priester, R. (2016). Smart Citizens: Exploring the Tools of the Urban Bottom-Up Movement. *Computer Supported Cooperative Work (CSCW)*, 25(2–3), 137–152.
<https://doi.org/10.1007/s10606-016-9249-6>

Ostrom, E. (1991). *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge University Press.

Paterson, A. G. (2011). Learning together in Networked Cultural Associations. *Musiques & Cultures Digitales*, (62). Retrieved from <http://www.digitalmcd.com/>

Poutanen, P., Botero, A., Marttila, S., & Villi, M. (2015). Everyday self-organising social movements and the role of social media in citizen engagement. *Sphera Publica*, 0(15), 2–20.

Saad-Sulonen, J. (2014) Combining Participations. (Doctoral Dissertation). Aalto University, School of Arts, Design and Architecture, Helsinki, Finland.

Saad-Sulonen, J., Botero, A., & Marttila, S. (2016). Shaping the Streets as Commons. Engaging Physical and Digital Dimensions. Presented at the City Street² : Street-forming | Re-forming: Transforming the 21st Century City Streets, Beirut, Lebanon.

Schoffelen, J. (2016). *Sharing is caring. Thick documentation in Participatory Design* (Doctoral Dissertation). Hasselt University, Hasselt, Belgium.

Schoffelen, J., & Huybrechts, L. (2013). Sharing is caring. Sharing and documenting complex participatory projects to enable generative participation. *Interaction Design and Architecture(s) Journal*, (1), 9–22.

Schoffelen, J., Schoffelen, Huybrechts, L., & Oswald Devisch (2019) Documentation Games: A Comparison between Three Games that Foster Documentation during the Design Process. In O. Devisch, L. Huybrechts, & de Ridder, R. (eds) *Participatory Design Theory: Using Technology and Social Media to Foster Civic Engagement*. London and New York: Routledge.

Scholz, T. & Schneider, N. (Eds.) (2017) *Ours to Hack and to Own, The Rise of Platform Cooperativism, A new vision for the future of work and a fairer internet*. New York: OR Books.

Seppälä, P. (2012). Tiny social movements: Experiences of social media based co-creation. In *Towards Peer Production in Public Services: Cases from Finland* (pp. 34–49). Helsinki, Finland: Aalto University, School of Art, Design and Architecture.

Seravalli, A. (2012). Infrastructuring for Opening Production, from Participatory Design to Participatory Making? In *Proceedings of the 12th Participatory Design Conference - Volume 2* (pp. 53–56). New York, NY, USA: ACM. <https://doi.org/10.1145/2348144.2348161>

This is the authors' version of the article. It is included in a volume of the Contributor's own collected papers without charge and without seeking the Publishers' permission provided that twenty four months shall have elapsed since the publication of the Publishers' edition of the Work and that due acknowledgement of the original publication is made.

For referencing, please refer to:

Botero, A. & Saad-Sulonen, J. (2019). (Challenges and Opportunities of) Documentation Practices of Self-Organized Urban Initiatives. In Oswald Devisch, Liesbeth Huybrechts and Roel De Ridder (eds). *Participatory design theory: using technology and social media to foster civic engagement*. UK: Routledge.

Suonsyrjä, A. (2017). Mentorointi kaupunkitapahtuman tuotannossa : Arabian Katufestivaalin mentoritoiminnan kehittäminen ja mallinnus. Retrieved from <http://www.theseus.fi/handle/10024/122514>

Teli, M., Bordin, S., Menéndez Blanco, M., Orabona, G., & De Angeli, A. (2015). Public Design of Digital Commons in Urban Places. *Int. J. Human Computer Studies*, 81(C), 17–30. <https://doi.org/10.1016/j.ijhcs.2015.02.003>

Tronto, J. C. (2013). *Caring Democracy: Markets, Equality, and Justice*. NYU Press.

Tufekci, Z. (2014). Social Movements and Governments in the Digital Age: Evaluating a Complex Landscape. *Journal of International Affairs*, 68(1), 1–18.

Tulikukka, P. (2012). Learning peer-to-peer practices step-by-step: 3 cases from suburban Helsinki neighbourhoods. In *Towards Peer Production in Public Services: Cases from Finland* (pp. 76–88). Helsinki, Finland: Aalto University, School of Art, Design and Architecture.

Wang, X., Wakkary, R., Neustaedter, C., & Desjardins, A. (2015). Information Sharing, Scheduling, and Awareness in Community Gardening Collaboration. In *Proceedings of the 7th International Conference on Communities and Technologies* (pp. 79–88). New York, NY, USA: ACM. <https://doi.org/10.1145/2768545.2768556>

White, J. I., Palen, L., & Anderson, K. M. (2014). Digital Mobilization in Disaster Response: The Work & Self-organization of On-line Pet Advocates in Response to Hurricane Sandy. In *Proceedings of the 17th ACM Conference on Computer Supported Cooperative Work & Social Computing* (pp. 866–876). New York, NY, USA: ACM. <https://doi.org/10.1145/2531602.2531633>