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Putting Down Roots: Exploring the Placeness of Virtual Collections in Public Libraries

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ABSTRACT
In this pictorial, we investigate how a virtual collection can put down its roots in a physical space and integrate into the local community. We present **PLACED**, a place-centric digital service that supports participation and community-production of knowledge in library events. We illustrate how **PLACED** has been deployed and used at a local public library over a six-month period. We examine the community-produced virtual collection that grew out of this library event with a focus on its *placeness*.

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AUTHORS KEYWORDS
Public libraries; place; virtual collections

CSS CONCEPTS
- Human-centered computing~Human computer interaction (HCI)~Empirical studies in HCI

INTRODUCTION
The advances of the Internet, mobile technologies, and digitalization bring the promise of access to information any time, anywhere [4]. While we have witnessed remarkable benefits from this development, it also means that information is increasingly becoming *placeless* [13]. This poses fundamental challenges for public libraries, which have traditionally occupied a central position in society as the local gateway to knowledge. In response, many libraries are undergoing institutional transformations to redefine their role, integrating and developing a number of public services, such as offering various types of social support and organising a wide range of community events, both educational and recreational [16].

Over the past three years, we have worked on a cross-European research project to explore this transition. We have worked in close collaboration with public libraries to design, develop, and deploy digital services that support libraries and publics in organizing community events, capturing the knowledge created in these events, and storing, curating, and linking this knowledge with the library collection. One of the key insights that has emerged from this work is the value of connecting the digital content to the physical library space, to the local practices that unfold in library events, and to the community members who take part in them. Fostering such connections can anchor technology into places, and thus, develop *placeness*.

In this pictorial, we examine how a novel digital service has been deployed at a local public library over the course of six months in a weekly series of creative workshops. Specifically, we will illustrate and reflect on the virtual collection that grew out of this library event with a focus on its placeness. Drawing from theories of place [6, 7, 17] and the concept of *genius loci* [5], we reflect on how the virtual collection was integrated with the physical library space.

RELATED WORK

Historically, public knowledge institutions have served as iconic physical third places in local communities. Thus, Dalsgaard and his colleagues [5] have long advocated that design for public knowledge institutions should "respect the sense of place." Dalsgaard and colleagues turned to the notion of *genius loci* (Latin for "the spirit of the place") to denote the distinctive character or atmosphere of a place. *Genius loci* can be understood as the amalgamation of shared socio-cultural meanings that are attributed to a specific place by its community members. To support the (co-)construction of the *genius loci*, Dalsgaard and colleagues called for designers to explore ways of encouraging participation through various forms of community-generated content contribution; so that the library user will not merely consume but give something meanigful to the place. The **PLACED** system we present here responds to this call.

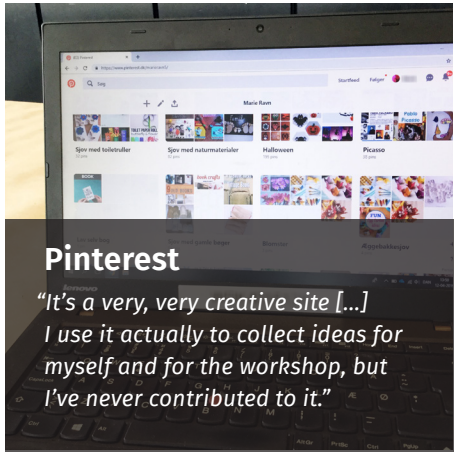
Furthermore, our work strongly resonates with Reich and Weiser's earlier work [15] in which they argued that we need to temper naive enthusiasm for building a completely *placeless,* universal information system. They argued that public libraries have a major head start in this area to explore community-based information systems that encourage each local community to create its own network culture and identity.

Our work is also inspired by Odom et al's work [12, 13] on virtual possessions. Yet, our work differs from Odom et al's work in that we deal with public rather than private collections. We explore publicness by drawing on research into *commons* [14], which examines shared resources and social practices that evolve around digital media. Whereas considerable attention has been directed at the legal aspects of digital commons [2, 9], in recent years, there has been a growing interest in developing design strategies for commoning, or *commons design,* including [1] and [10]. We build on commons design by exploring the ways in which community-produced virtual collections can be linked with the traditional library collection, and thus become an ever-growing part of the urban community's shared resources (i.e., commons).

About the Creative Workshop Series

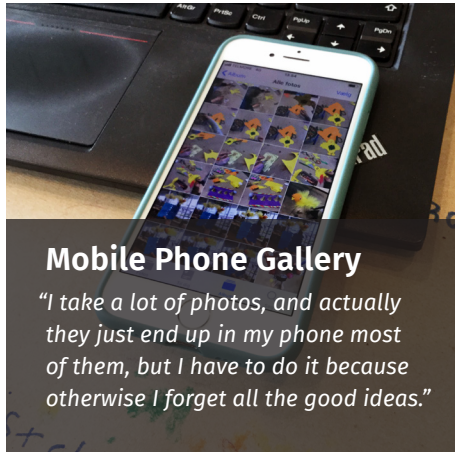
To gain deep, situated insights into designing place-centric interactive technologies for library events, we worked in close collaboration with the organizer of the Creative Workshop series at a major library in Denmark. The goal of this library event is to introduce participants to different creative practices so that people can learn new skills, get inspired, and connect with each other through making. The Creative Workshop is offered twice a week. The event organizer chooses a different theme each week, sometimes taking inspiration from an ongoing local events (e.g., music festivals). Typically participants join the event as a family with young children. People can drop in anytime during the workshop session (1.5 hours) without registration.

While many library events are one-off events, the Creative Workshop series happened all year long, thus granting us the time needed to build a strong relationship with the workshop organizer for engaging in a Participatory Design process. We conducted a series of field observations, contextual inquiries, focus groups, and co-design workshops to understand how events are organized in public libraries.



Pinterest

"It's a very, very creative site [...] I use it actually to collect ideas for myself and for the workshop, but I've never contributed to it."

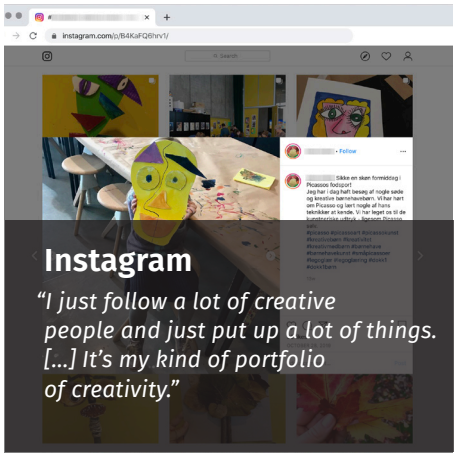


Mobile Phone Gallery

"I take a lot of photos, and actually they just end up in my phone most of them, but I have to do it because otherwise I forget all the good ideas."

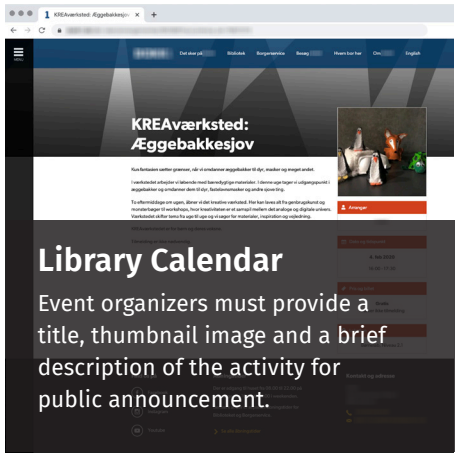
Event Organizer's Digital Toolbox

The Creative Wrokshop organizer identified Pinterest, Instagram, and the camera on her personal mobile phone as the most frequently used tools. In addition, the organizer needed to regularly update new event information on the library calendar.



Instagram

"I just follow a lot of creative people and just put up a lot of things. [...] It's my kind of portfolio of creativity."



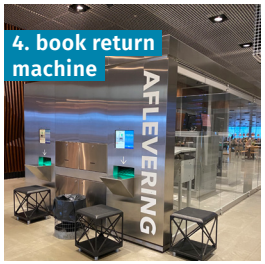
Library Calendar

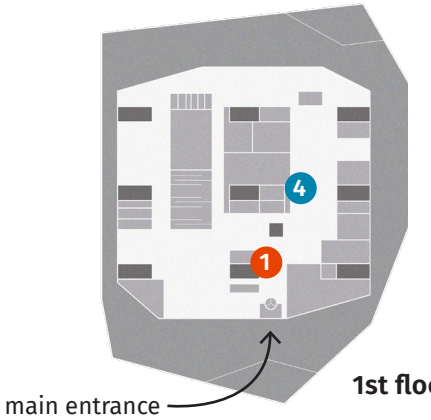
Event organizers must provide a title, thumbnail image and a brief description of the activity for public announcement.

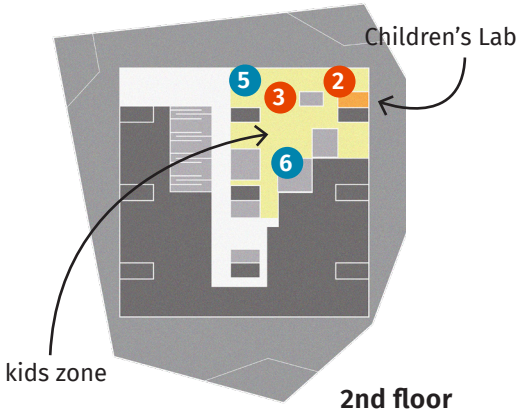
Placing the Creative Workshop in the Library

Here we summarize key areas and digital technologies that contribute to the *genius loci* of our research site. In particular, the Creative Workshop series took place in the Children's Lab located on the second floor within the kids zone. Children are allowed to play and make noise in this area. Note that most public displays are located in passageways, and despite continuous streams of information, they are scarcely noticed by most visitors.

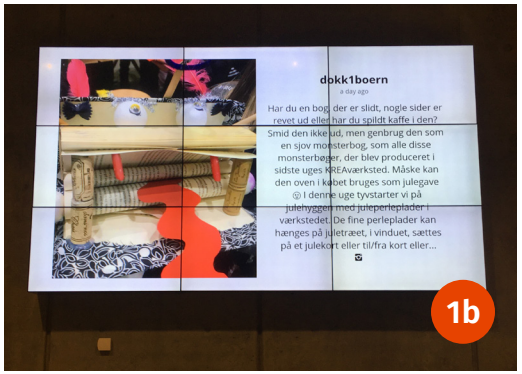
interactive techs in the library





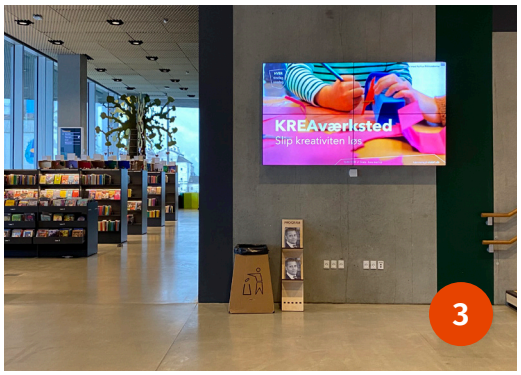


A large screen near the main entrance displays short video clips promoting the main library events as well as Instagram posts automatically tracked through the hashtag.



The workshop organizer occasionally posts on her personal Instagram account about the Creative Workshop, knowing that it will show up on the library's main public display.

Each week, the workshop organizer put out an A-frame chalkboard sign in front of the Children's Lab to announce a new theme.



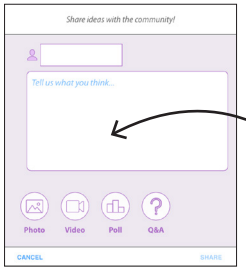
A public display on the second floor is dedicated to child-friendly events. Eight event posters appear in rotation, including the Creativity Workshop series.

"But a lot of people don't know! [...] Actually we have this blindness of information. Information blindness."

About the PLACED

To support the Creative Workshop series, we developed a community-based information sytem. The **PLACED** system consists of two modules: a documentation module designed for personal mobile devices, and a visualization module for interactive public displays. Both modules are connected to the library calendar and collection APIs.

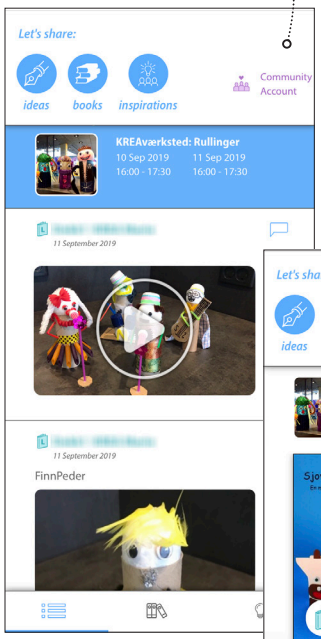
DOCUMENTATION MODULE

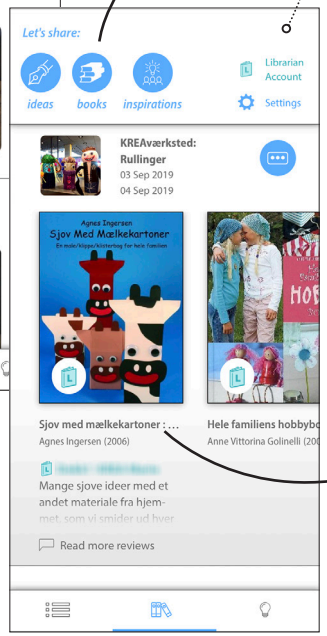


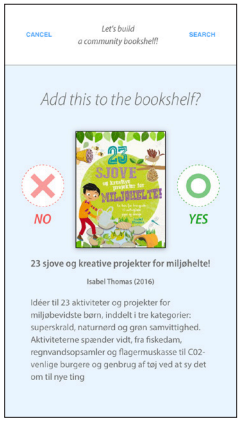
Users can upload photos and videos, create polls, or post Q&As.

Publics can use the system without registration via shared community account.

Registered library staff can access settings and moderate content via librarian account.

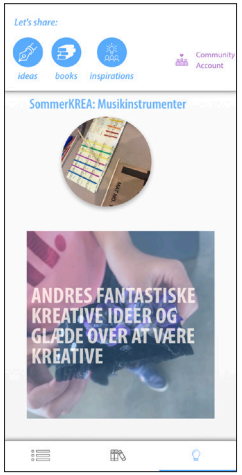


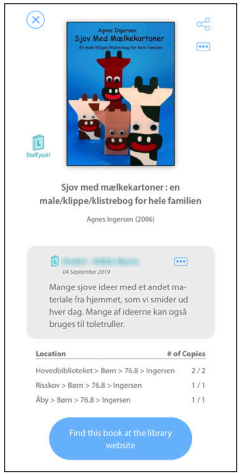




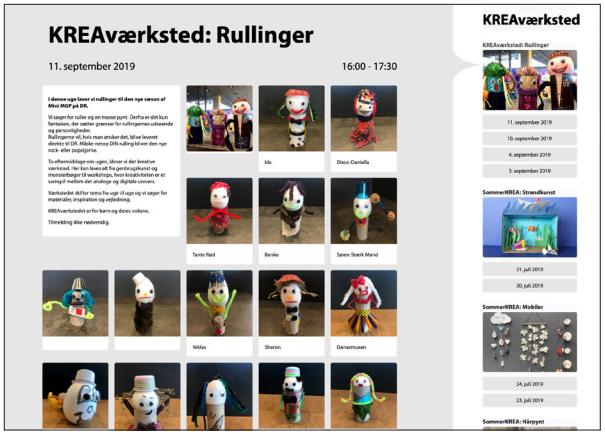
Each event has a virtual bookself linked to the library database. The system offers smart book suggestions, which users can filter with a Tinder-like swipe interaction.

Inspiration channel allows users to share creative ideas that are not directly tied to a specific event theme.

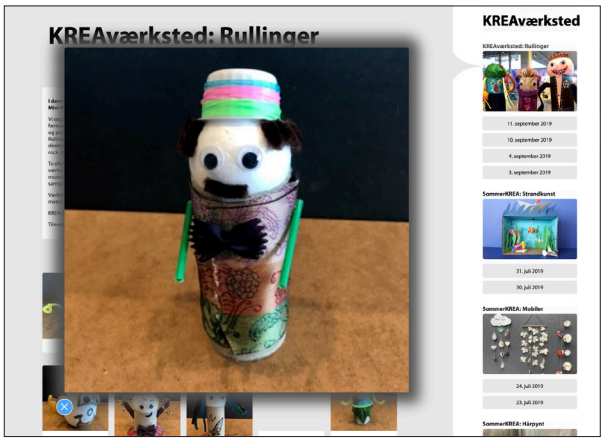


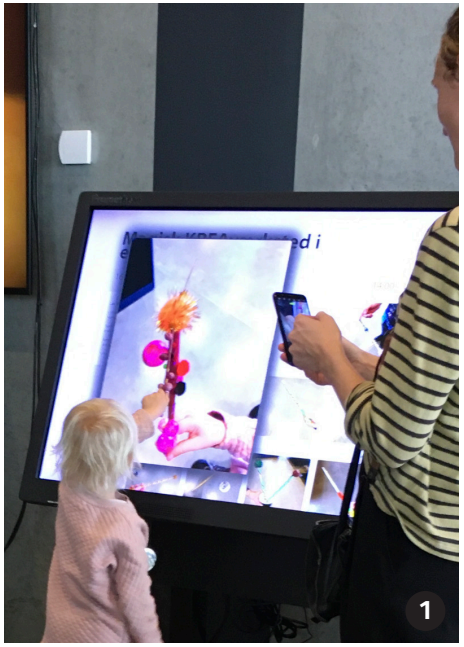


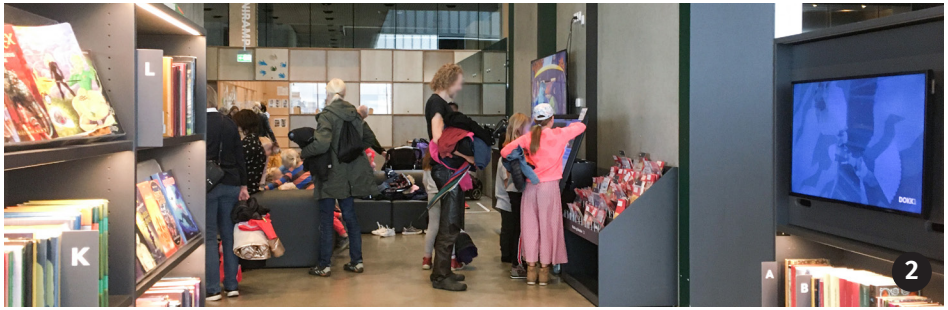
VISUALIZATION MODULE



The visualization module offers a list of past, ongoing, and upcoming events. Photos and videos captured with the documentation module show up within seconds on the public display. Users can interact with the content through touch (e.g., zoom for images and playback for video files).







1) Parents often took photos of their kid's photo on **PLACED**. 2) People interacting with **PLACED** while waiting for the event to open. 3) Flyers for promoting **PLACED**. 4) View from within the Children's Lab.

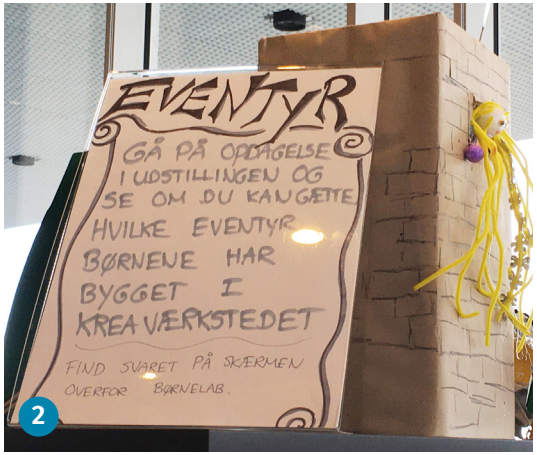
Deployment : *july – december, 2019*

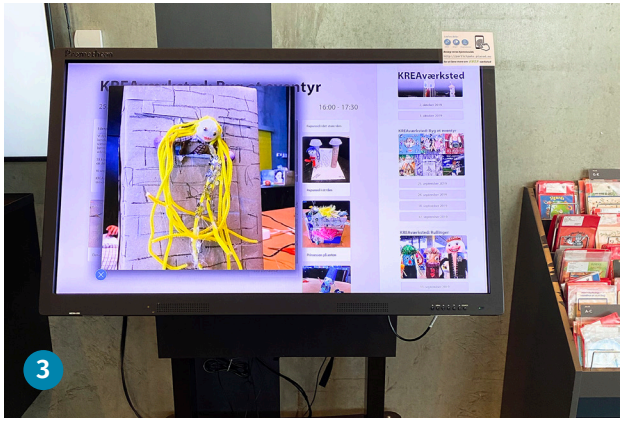
We deployed **PLACED** "in the wild" from July to December 2019. We installed a 55-inch interactive public display in an open sitting area near the Children's Lab. Participants often hanged out in this area before the event as they waited for the Creative Worshop to open as well as after the event to refresh. Although the visualisation module was located outside, it was still visible to the event participants from within the Children's Lab through to glass walls. The display was slightly tilted and positioned low enough for young children to reach and interact with. To the left, a non-interactive public display silently streamed animation films. To the right, bookshelves were lined up in the children's literature section.

In what follows, we present four key insights for placing community-produced virtual collections in public libraries. The insights are derived from the extensive field observations during the six-month deployment period as well as the formal and intermal interviews conducted with the Creative Workshop organizer, who we refer to as Krea-Marie hereafter.

SUMMARY OF DATA GENERATED BY **PLACED**

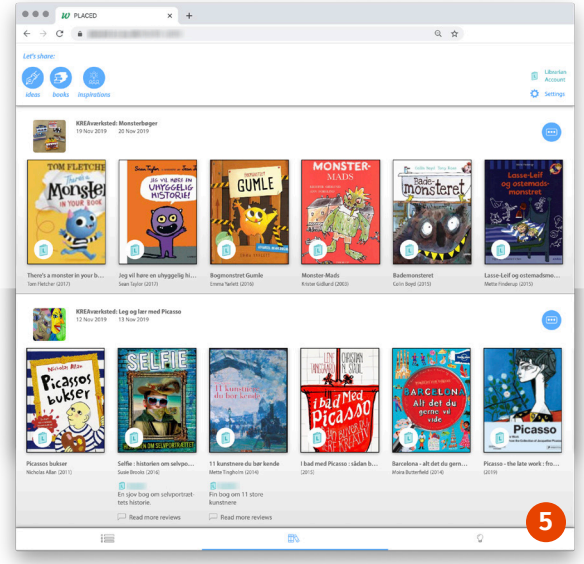
16	**191**
themes	**books**
611	**90**
photos	**videos**





1 2 3

*"**FAIRY TALES.** Explore the exhibition and see if you can guess what fairy tales children have built in the Creative Workshop. Find the answer on the screen across from the Children's Lab."*



4 5 6

PLACED inspired the event organizer to reconfigure her work space. The glue-gun table was tranformed into a bookshelf, bringing the virtual book collection into life.

Placing the PLACED 1. *connecting to the space*

"I have needed some ways to connect [the Creative Workshop] to the library, with the books and all the knowledge that is around us," Krea-Marie said. **PLACED** acted as a mediating aretifact [18], offering new ways to link the event (e.g., themes, crafts) with the library space and resources (e.g., books, exhibitions). In particular, the event organizer used **PLACED** to create a quiz related to an ongoing exhibition in the children's literature section. Each week, the event organizer created an event bookshelf, both digitally and physically.

"One time I have noticed that a family went home and uploaded pictures of their artwork with the other things they made during the [summer vacation]. It was a family, the grandparents had their grandkids visiting, and for the whole week they have been making things [...] so they had made this big exhibition for the parents to see when they arrived to pick up the kids. So what they made [in the Creative Workshop], it could be a part of this big exhibition, we talked about it, it was very interesting. And when they got home, they uploaded the photo of all their stuff. So that was my hope that more families will do that and work more with the [creative] themes when they got home."

"[People told me that] it's fun to look at their own pieces on the big screen, it's like they are famous because what they made is on the big screen. Also, I have noticed when there isn't a workshop and people are just walking around finding books, they also go by the screen to show grandparents or parents or siblings what they had made earlier."

— Krea-Marie in the exit interview

Placing the PLACED 2. *connecting people*

PLACED connected people by providing playful objects for families to collectively work on, reflect on, and talk about. **PLACED** brought families closer together, even the remote members, to understand each other better.

TAKE #1

TAKE #2

PLACED connected parents and children in the process of making videos. For example, a father held up the spaceship in front of the camera while his kid was still busy packing up his stuff. A few minutes later, the kid came out to check out the video and pointed out that it's not how it worked. The kid explained to the father how the spaceship would launch into space to dock to the station on the other side. The father gained a better understanding of what the kid had in mind. Together, they collaborated to document a new video from a shared understanding.

Placing the PLACED 3. *capturing local color*

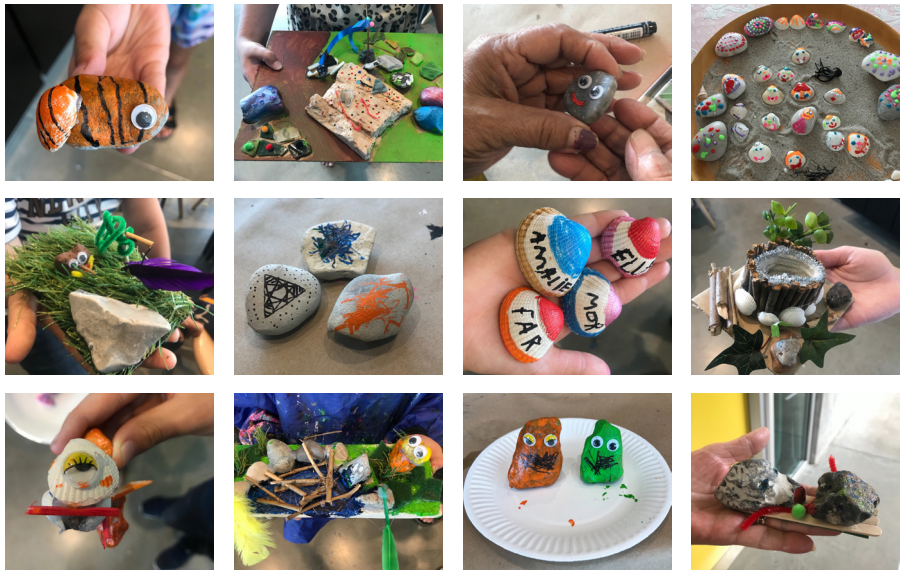
Digital archives can function as rich resources for identity construction and presentation [8, 12]. **PLACED** supported the Creative Workshop to construct a local identity by capturing local colors. The event organizer selected themes reflecting the seasonal events and traditions, and often used materials collected from nature. In turn, the **PLACED** community gallery brought out the rich color tones, cultural and natural temporalities of the local community.

Beach Art

July 30 – 31, 2019

"Summer has come to Denmark, which means trips to the beach. The beach is full of fun, beautiful stones and shells [...] So come and join us to give stones and shells new life."

the PLACED community gallery 71 images total



Autumn Art

October 22 – 23, 2019

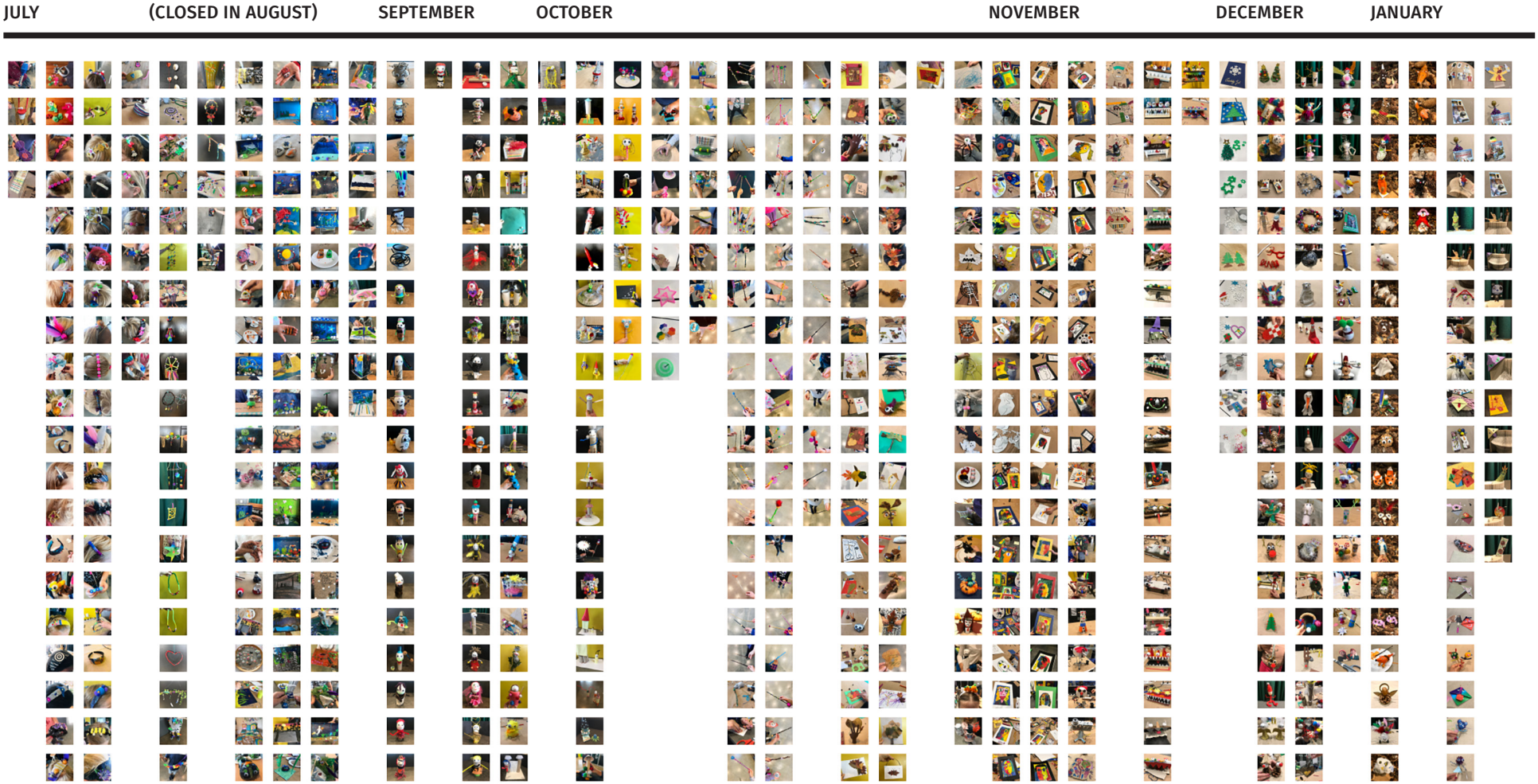
"Summer is over and autumn has come. [...] KREA-Marie has been in the woods collecting leaves, twigs and cones. This week we will see what nature's materials can become."

the PLACED community gallery 41 images total

Placing the PLACED 4. *growing with time*

Genius loci is about social meaning-making [5]. Likewise, Dourish defined place as “the ways in which settings acquire recognizable and persistent social meaning in the course of interaction” [6]. Importantly, it takes time for such social meanings to emerge and grow. The prolonged deployment period allowed us to observe the ways in which people gradually came to value **PLACED**. Notably, in October 2019, roughly three months into the deployment, we have begun to see people coming back to find their photos and videos from past events, appreciating their memoires preserved on **PLACED**. As such, **PLACED** provided a foundation on which to build a collective memory.

On October 23, a boy asked Krea-Marie if she can help him find his “Spaceman Mr. Mustache” that he had made before. When the photo appeared, the boy gave a huge hug to Spaceman Mr. Mustache over the screen with a big smile on his face.



Reflections : *placing the virtual collection in public libraries*

In this pictorial, we explored how community-produced virtual collections can reinforce the genius loci in public libraries. We did so by visually contextualizing how **PLACED** had been deployed and used in a particular library event over a six-month period, reflecting on how **PLACED** gave rise to new forms of participation and community-production of knowledge in library events, and how the local community came to value their virtual collection over time.

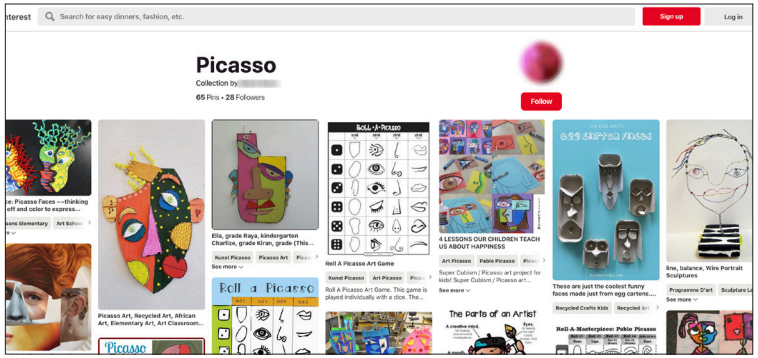
Specifically, we highlighted four ways in which **PLACED** contributed to the (co-)construction of genius loci in the public library: (i) by inspiring more active use of the physical library space and resources (e.g., rearrangement of bookshelves), (ii) by encouraging social interactions (e.g., stimulating intergenerational dialogue), (iii) by capturing local colors, and (iv) by building a collective memory of the event over time.

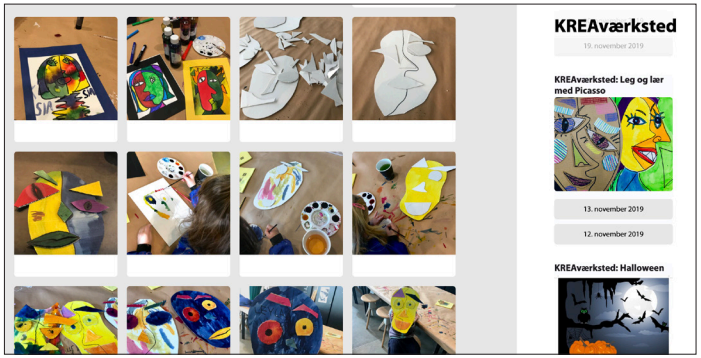
Importantly, **PLACED** acted as a mediating artefact not only for configuring the relationship between the virtual collection and the library collection, but also for grounding the event itself more firmly in the library space. The Creative Workshop organizer reflected: "Personally, I learned to use the books more in the workshops and how to [do so], which I needed a way into before. I became more aware of using all the knowledge in the house more [by participating in this design project]. [...] It makes so much sense that we can connect these things [that we make in the Creative Workshops] with books."

While knowledge is becoming increasingly digitized and placeless, we hope that our work and insights will inspire more designers to explore place-centric technologies, particularly, in support of strengthening the genius loci in public libraries and working with local communities.

Placeless Virtual Collection

Popular social media such as Pinterst provide global platforms that are easy to access, collect, and share ideas. However, the content often lacks sense of place, resulting in a collage of rootless things.





Placed Virtual Collection

"It's fun for me to use the pictures from stuff made here instead of just finding [from] everywhere else."

The creative workshop organizer found it highly relevant and meaningful to engage with, and build upon, locally-sourced materials. It helped to strengthen ties between the event and the library space.

Co-construction of Genius Loci

The virtual collection reflected the atmosphere of the place (e.g., local events, nature, traditions). In turn, the physical library space was reconfigured by the virtual collection.

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