



A Danish Blend: The Copenhagen Walkshop

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ABSTRACT

The walkshop introduces participants to an embodied, structural approach to understand, conceptualize, and design experiences that blend physical and digital space to create a novel space of action, with its own sense of presence, its own affordances, and its very special challenges. It consists of an outdoors morning walking and exploratory session, and of an afternoon mapping and reflective session at the conference venue. During the morning session, participants directly experience the urban fabric of Copenhagen and engage in activities meant to explore and expose the way digital and physical space commingle and become a layered blended space. During the afternoon session, the participants turn notes and observations into maps with the help of methods and tools provided by the facilitators. Attention is paid to identifying friction between pace layers and to the structure, participating elements, and relationships that support the experience in either digital, physical, or blended space, and to reflect on how the structures of embodiment and spatiality shape experience and act as important, non-interface level grounding elements in the design of human activity in all types of space. The walkshop concludes with a plenary discussion of the deliverables created by participants, what insights were gained in the process, and possible developments to follow.

CCS CONCEPTS

• **Human-centered computing** → *HCI theory, concepts and models; Mixed / augmented reality; Ubiquitous and mobile computing theory, concepts and paradigms.*

KEYWORDS

Blended space, experience design, information architecture, walkshop, OTC, pace layers



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1 THEME AND GOALS

Cities also believe they are the work of the mind or of chance, but neither the one nor the other suffices to hold up their walls. You take delight not in a city's seven or seventy-seven wonders, but in the answer it gives to a question of yours

Italo Calvino, *Invisible Cities*

This full-day two-part walkshop intends to help participants rethink and reimagine their relationship with themselves, with society, and with the environments they live in by introducing them to the concept of blended spaces. The space of the city is the human space par excellence, where culture, society, and power become paths, barriers, passages, and information. But digital spaces are also human spaces, and they are omnipresent, and increasingly bleeding into and blending with physical space.



Figure 1: Walkshops in Chicago, Dublin, and Genoa

To illuminate this process, its challenges, opportunities, and consequences, the facilitators first take participants on a walkshop that in 3 hours and 4 kilometers looks at what being immersed in the urban space of Copenhagen can tell us about the relationship between the human body, urban and architectural space, and digital space. Along the way, participants engage in activities meant to make them observe, take notes, reflect, and discuss how human space is to all effects one, and how the experience of space in the 21st century is a blend of the physical and the digital, one where spatiality and embodiment have a bearing on the design of digital

as much as digital has a bearing on our continuously evolving understanding of the places we live in. A visit to a local bakery for danishes / wienerbrød and a conversation on the superstructures of language and the infrastructures of embodiment may or may not be part of the experience.

After lunch, the workshop will continue at the conference venue and use an information architecture approach called OTC to transform the morning notes into maps, in an effort to trace how the experience of participants blended (or did not blend) digital and physical, what worked well or when and where frictions manifested, where structures provided guidance or engendered confusion, where information was punctual and useful and where it was missing, superabundant, or misleading. Abundant time will be given to whole-room discussions of the major challenges and opportunities emerging from the mapping activities.

The workshop wrap ups with final comments from participants and facilitators, and with an invitation to those interested to either participate in the post-workshop consolidation and dissemination of the outcomes or otherwise engage with the ongoing conversation on blended spaces. Links, pointers, and contact persons will be provided at the conference and also communicated to participants via email.

The workshop is broadly interdisciplinary and transdisciplinary, built around three phases centering on group exploration, reflection through making, and consolidation through discussion. It directly engages with the conference themes related to “Design Methods and Processes” and “Artifacts and Systems”.

2 BACKGROUND, FOCUS, AND MOTIVATION

Klyn and Resmini have run urban workshops at design conferences since 2018, including ones in Chicago, Dublin, Ottawa, Genoa, Zurich, Lisbon, New Orleans, and Venice.

Workshops have a long if informal history in architecture [6, 12]. The specific workshop format used through the years by the facilitators shares formal similarities with traditional architecture walks and with the participatory Scandinavian tradition of pedagogical walk-throughs, both in education [9] and architecture [7], but were expressly created by Klyn and Resmini to support the mid-2010s shift happening in information architecture and experience design towards digital / physical journeys [14].



Figure 2: Workshops in New Orleans and Venice

The intention of Klyn and Resmini’s workshop is to provide an embodied and reflective experience of urban space as an information, semantic space that is now blending digital within physical, and activate all of the senses and (some) critical faculties [19]. Participants are invited to read the urban fabric as information structures that enclose and support the lives of people, information architectures that are co-present in the architectures of wood, steel and

stone of the city and that flow at different, sometimes contradictory, speeds.

The goal is to systemically reposition one’s view of the way we design experiences. While much of design practice and research centers on an artifact (a device, a mobile app, a kiosk system), precisely identified as “digital” or “physical”, people center on their overall goals and experiences, and these loosely and freely connect locations, devices, information sources, both digital and physical, and people [17].

Trigger questions for discussion typically raised during the walkshop and in mapping and reflection session are: How does information flow through the city? How is it used? How does the built environment support the storage and delivery of information and meaning? What information lives in the physical world? What information lives in the digital world? How do they blend? For what goals? Do you need a special or personal device to make use of that specific piece of information?

3 THEORETICAL FOUNDATIONS

Important theoretical contributions that shape the framing and intended outcomes of the workshop include: Benyon’s blended spaces [1]; the conceptualization of the place of experience as an ecosystem [2, 15, 16, 18, 20]; Klyn and Resmini’s OTC structure [10, 11]; and Brand’s pace layers [3, 5].

Benyon [1] conceptualizes a blended space as a space where a physical space is deliberately integrated in a close-knit way with a digital space: this commingling creates a new type of space with its own emergent structure and a novel user experience. Blended spaces have properties that emerge from the particular local combination of physical and digital and that produce a new sense of presence and lead to new ways of interacting. The structure of a blended space can be described through its ontology, topology, agency, and volatility [1].

Extending Benyon’s seminal idea, Benyon and Resmini [2] and Resmini and Lindenfalk [16] stipulate that an experience can be systemically formalized as happening in a radically actor-centered non-continuous space of action, the place where the experience itself unfolds. In this sense, the information architecture expressed by the structural components of this place is the second-order-machine of an actor’s experience.

The concept of a second-order-machine is mutated from Gharajedaghi [8]. Gharajedaghi describes it as “a blueprint for production of a predefined order” in socio-cultural systems, the “image of what (the system) ought to be”. Unless this blueprint is altered and an alternative structure generated, any changes to the system will only address epiphenomenic symptoms and fail to produce long-term change. Klyn and Resmini [11] argue that this second-order-machine can be spatially described in its constitutive elements and their relationships as formally articulated by ontology, topology, and choreography.

Choreography instantiates the ecosystem. It is the compound view of the multiple idiosyncratic ways for actors to “experience” their individual experience. For example, commuting to work or, in the case of the workshop, “walk around Copenhagen doing activities”. The elements participating in the choreography have to be

identified to formulate and formalize both the topology and the ontology of the place of the experience. **Topology** represents how the elements relate to each other spatially, in accordance with spatial primitives such as proximity, separation, enclosure, or directionality [13] or environmental elements such as paths, edges, districts, nodes, and landmarks [12]. Topology encodes behavior and socio-cultural patterns, including politics, through spatial relationships. **Ontology** describes what elements the experience contains, how many they are, how they are categorized, and whether one single ontology or multiple overlapping ontologies are identifiable in this specific experience ecosystem. Ontology directly affects the extension and complexity of the place of experience and influences its topology.

Since experiences are lived bodily through time, and then remembered to provide more scaffolding for future experiences, the structuring of the place of experience is impacted by what Benyon calls volatility, change, a reflection of which is captured by choreography in the OTC model. To fully address and capture the complexity of the interactions between what changes most slowly (human biology, for example), what changes faster (the built environment), and what changes fastest (the digital environment) layers, and to fully grasp their mutual influences, the framing adopts Brand's concept of pace layers [3, 5]. First introduced as a way to describe how different parts of buildings change at different speeds, Brand developed pace layers into a general model to conceptualize how the relationships and the friction existing between social layers fundamentally contribute to the system's own resilience. As he wrote, "(f)ast learns, slow remembers. Fast proposes, slow disposes. Fast is discontinuous, slow is continuous. Fast and small instructs slow and big by accrued innovation and by occasional revolution. Slow and big controls small and fast by constraint and constancy" [4]. These fundamental characteristics of the pace layer model can be formalized as three design heuristics:

- in layers where there is high variability, the goal is to maximize adaptability;
- in layers where there is low variability, the goal is to stabilize the structure;
- in layers where changes are happening very fast and variability is low, the effects of these changes can become detrimental for the systems working in the other layers.

These heuristics have a direct bearing on the designerly approach underlying the OTC model: when considering choreography (fast, high variability), seek adaptability; when considering topology and ontology (slow, low variability), seek stabilization; when looking at the entirety of the experience ecosystem, consider the interactions between the layers and identify leverage and friction points.

4 THE WALKSHOP

The full-day walkshop consists of a series of walking and exploratory activities outside of the conference venue and in the urban fabric of the city of Copenhagen (morning), and of a mapping, discussion, and reflections session at the conference venue (afternoon).

4.1 Morning: Walking Session

The facilitators welcome participants at the designated walkshop meeting point, provide the basic instructions for the day and the

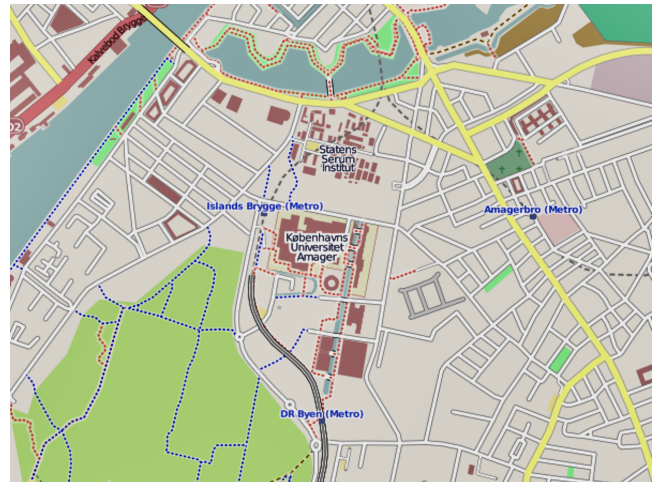


Figure 3: Walkshop area, 1-2 km around the conference venue

necessary materials for the activities to be carried out outside in the morning. Then facilitators and participants head out into Copenhagen for the walking part of the walkshop, which consists of two primary activities divided by a "rest and reflect" break.

Activity 1 (A1, 9:30-10:30) sees participants walk from the venue to a specified point of interest nearby (chosen by the facilitators) while practicing observing and describing urban space as a layered information environment comprising visible and invisible parts, both physical and digital. A simple task such as finding a certain type of building, landmark or shop along the way is added to add a degree of detail to the activity.

Activity 2 (A2, 11:00-12:00) sees participants choose a theme from a list created by the facilitators and based on the location (green spaces, idle spaces, commerce, transport, urban nodes) and then walk their way back to the venue along preestablished routes observing, discussing, and documenting their experience of encountering the theme using notes, sketches, photos, and other materials.

For these two activities, the participants are divided in three groups: Team Blue (TB), Team Yellow (TY), and Team Green (TG). Within these teams, individuals can decide whether they intend to cooperate or proceed individually, depending on team size: larger teams may drive focus away from observation towards interpersonal interactions, and make the experience less than ideal.

TB engages with A1 with the explicit instructions to only use information and clues that can be obtained or accessed in digital space, via mobile phones, tablets, wearables, real-time displays in the street, and so on. TB then engages with A2 with the explicit mandate to only use information and clues obtained or accessed in physical space, via signage, behavior, urban elements, and the like.

TY does the opposite: they engage with A1 only via information and clues in physical space, and with A2 only via information and clues in digital space.

TG is explicitly asked to use information and clues from both physical and digital space.

All participants are required to take notes and track or map their activities in any way they like, provided that TB and TY do not use digital devices while running the "physical only" activity (for

example, no photos taken with mobile phones), and no analog methods when running “digital only” (for example, no pen and paper notes). TB and TY receive physical cards to visibly and clearly remind them of which modality they are engaging with at any moment.

The facilitators move between teams in order to provide support where and when needed and connect the theory of blended space and the OTC framing to ongoing activities. “Remote helpers” part of the facilitation team intervene via online digital tools (either teleconferencing, texting, or DMing) to help, hinder, or add complexity to the activities.

4.2 Afternoon: Mapping Session

In the afternoon session, participants turn their notes and observations into maps with the help of the facilitators. Starting from their own choreographies (their walks), participants diagram the ontology and topology of their experiences in A1 and A2 and then turn maps into reflections and reflections into explicit, if preliminary, conclusions. Specific attention is paid to identifying pace layers and to comparing and contrasting outcomes from the digital-only and physical-only sessions in A1 and A2 with those framed as happening in blended space, in terms of structure, participating elements and their relationships, and overall experience.

The workshop wraps up with a final room discussion of the various deliverables created so far, of what insights were gained in the process, and possible developments to follow. Participants share stand-out moments or reflections from their walks, group activities, and map-making.

An invitation is extended to those interested, to contribute to different post-workshop developments: one concerned with turning the insights from the workshop, integrated with those from previous workshops, into a series of teaching guidelines detailing goals, methods, challenges, and best practices to be used with students and practitioners to conceptualize and design digital / physical and blended spaces from an OTC perspective, to be published on the workshop’s own website. The other with variously engaging with the more academic conversation on future smart blended places, carried out at the REBEL design hub at the School of Information Technology at Halmstad University.

5 PURPOSE, ANTICIPATED OUTCOMES, AND GOALS

The workshop aims to develop and improve the ability of the participants to “read” the design of structures in the built environment as happening in blended space, to experience the novel affordances of good and bad blends, map their information structures using the OTC framing, turn them to meaning and intention, and suggest designerly ways to make day-to-day experiences in the 21st century more humane by rebalancing the relationship between the fast pace of technology flowing through the environment and the slower, deeper levers coming from spatiality and embodiment.

The primary intended outcome is in terms of knowledge production, and specifically in relation to understanding how the comingling of physical and digital space creates a novel space, with its own sense of presence, its own affordances, and its very special challenges.

Participants will actively first engage with and then reflect on how the structures of embodiment and spatiality shape our experiences and act as important, non-interface level grounding elements that have a huge bearing on the design and use of digital technologies.

6 CALL FOR PARTICIPATION

Experience Copenhagen like you never did before: step out of the conference venue and immerse yourself, mind and body, in the blended space of the city. In this workshop, the facilitators take you through Copenhagen to experience what blended spaces are, could be, and should be. You walk, you observe, you feel, you take notes, and discuss what blends are, where they are, and how you could design for them. The world of today is not physical nor digital: it is a blend, with its affordances, its own rules, its own sense of place and continuity that extends beyond what is immediately contiguous. The workshop is a highly immersive experience: you stretch your legs, you use all your senses, and then you pour your observations into sketches and drawings and maps, and we discuss. If this sounds like a plan to you, please send a half-page statement of interest explaining who you are, what you do, why you are interested in the workshop, and whatever you think we should know at workshops@blendedexperiences.com by June 8th 2024.

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