

# Smart Learning and Citizen Digital Literacy<sup>1</sup>

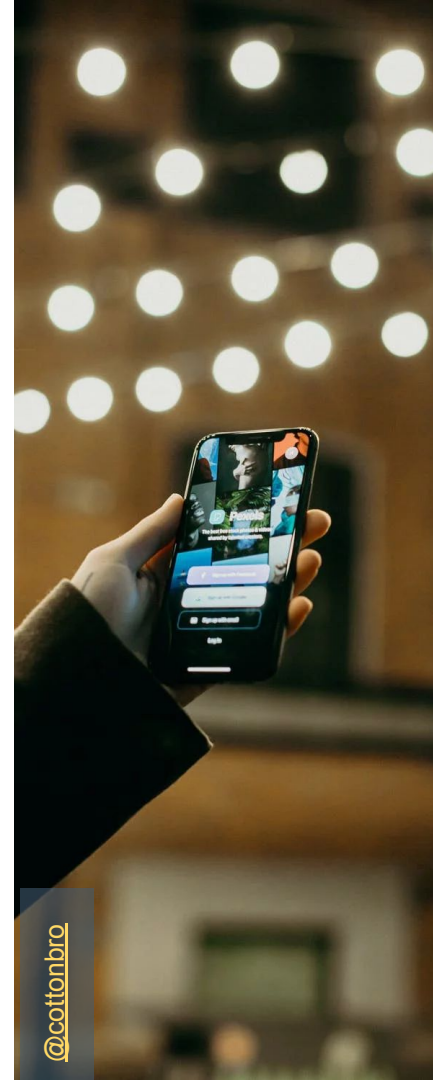
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Supporting citizen digital skills and literacies through hyperlocal situated creative activities and smart technologies

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# Smart Learning in my research

I focus on “in-the-wild” **digitally mediated smart learning journey activities in urban connected settings.**

I use free ad-hoc apps for informal learning with students, but these activities could be for formal or even *\*covert\** learning, with citizens, students or school children.

All sorts of activities can make use of this kind of learning experience: **creative, community-based, local heritage, environment & sustainability.**

## *Methodology:* **Phenomenography**

Focus is on the self reported experiences of participants, examined at ‘collective’ level, looking for categories of experience variation.

We achieve this by using models of a **structure of awareness**<sup>8,9</sup>, an internal close up focus creating meaning, extending out to an external ‘perceptual boundary’ horizon.

My research highlights ways to relate smart learning activity interactions to the DigComp2.1<sup>6</sup> digital skills and competences framework.

<sup>1</sup>Lister P. (2020). Smart Learning in the Community: Supporting Citizen Digital Skills and Literacies. In: Streitz N., Konomi S. (eds) *Distributed, Ambient and Pervasive Interactions*. HCII 2020. Lecture Notes in Computer Science, vol 12203. Springer, Cham. Doi 10.1007/978-3-030-50344-4\_38

# An Urban Digitized World

“... by 2050, 68% of the world's population is projected to be urban ...

... to ensure that the benefits of urbanisation are shared and that **no one is left behind**, policies ... *need to ensure access to infrastructure and social services for all*, focusing on the needs of the urban poor and other vulnerable groups for housing, education, health care, decent work and a safe environment...<sup>2</sup>

Digital skills and literacies are increasingly required in the world of work<sup>3</sup>. Civic infrastructure, community planning, environmental sustainability and enhanced citizen life need to find ways to support citizen digital skills development.<sup>4</sup>





# An Urban Digitized World

*Digital Citizen Skills and Competences* studies show that those most vulnerable and ‘at risk’ of being left behind in a digitized society are lower income groups, lower educational achievers and women<sup>5</sup>.

We need to design digital solutions to support development of digital skills and competences with consideration for these citizens groups<sup>4</sup>.



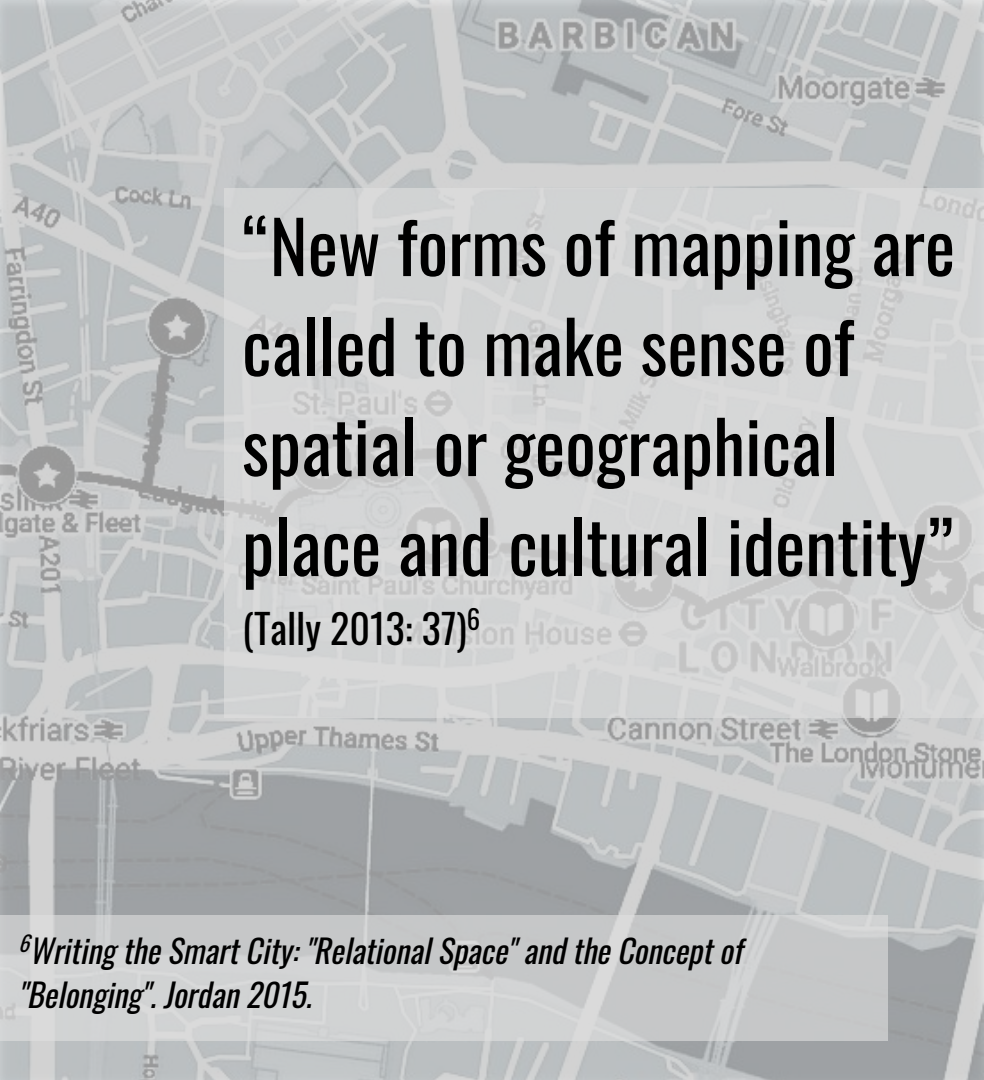
@krudeforth

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# Smart hyperlocal activities

**“But a city is more than a place in space, it is a drama in time”**

(Geddes 1905: 6)<sup>6</sup>



**“New forms of mapping are called to make sense of spatial or geographical place and cultural identity”**

(Tally 2013: 37)<sup>6</sup>

*<sup>6</sup>Writing the Smart City: “Relational Space” and the Concept of “Belonging”. Jordan 2015.*

# Smart hyperlocal activities

**Situating activities in real world hyperlocal places for localised purposes engages citizens in their surroundings and adds value to their community.**

Activities can be digitally mediated - using technology to offer interactive participation. This can be for creating and finding content, gathering and sharing feedback and ideas, sharing art or writing, or other reasons.

**By taking part, citizens are using technology, and by using it, they are learning.**



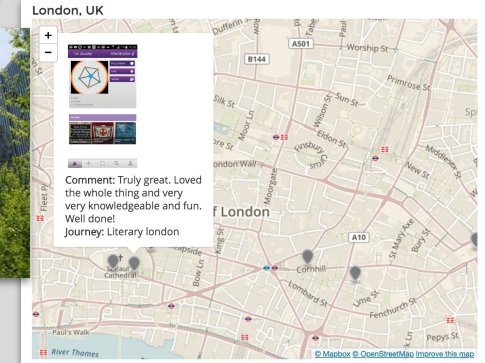
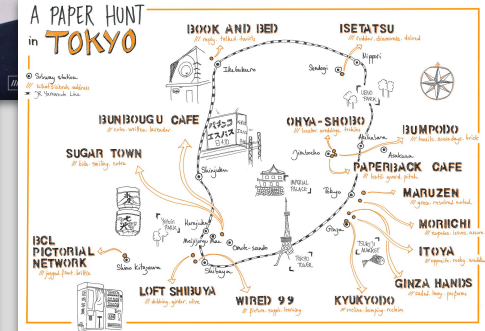
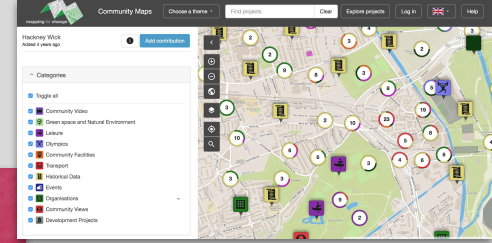
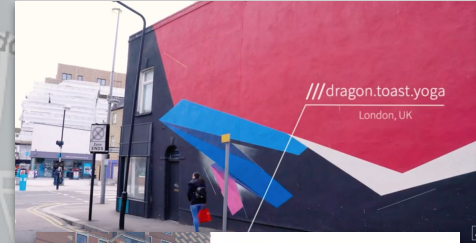
**Using apps as part of smart fun local activities can help to support digital skills & literacy development, because the public are learning new skills:**

- Use new apps
- Understand digital interfaces
- Digitally communicate with others
- Find digital content
- Use and understand GPS
- Get to know their phones more
- Self confidence
- Language skills



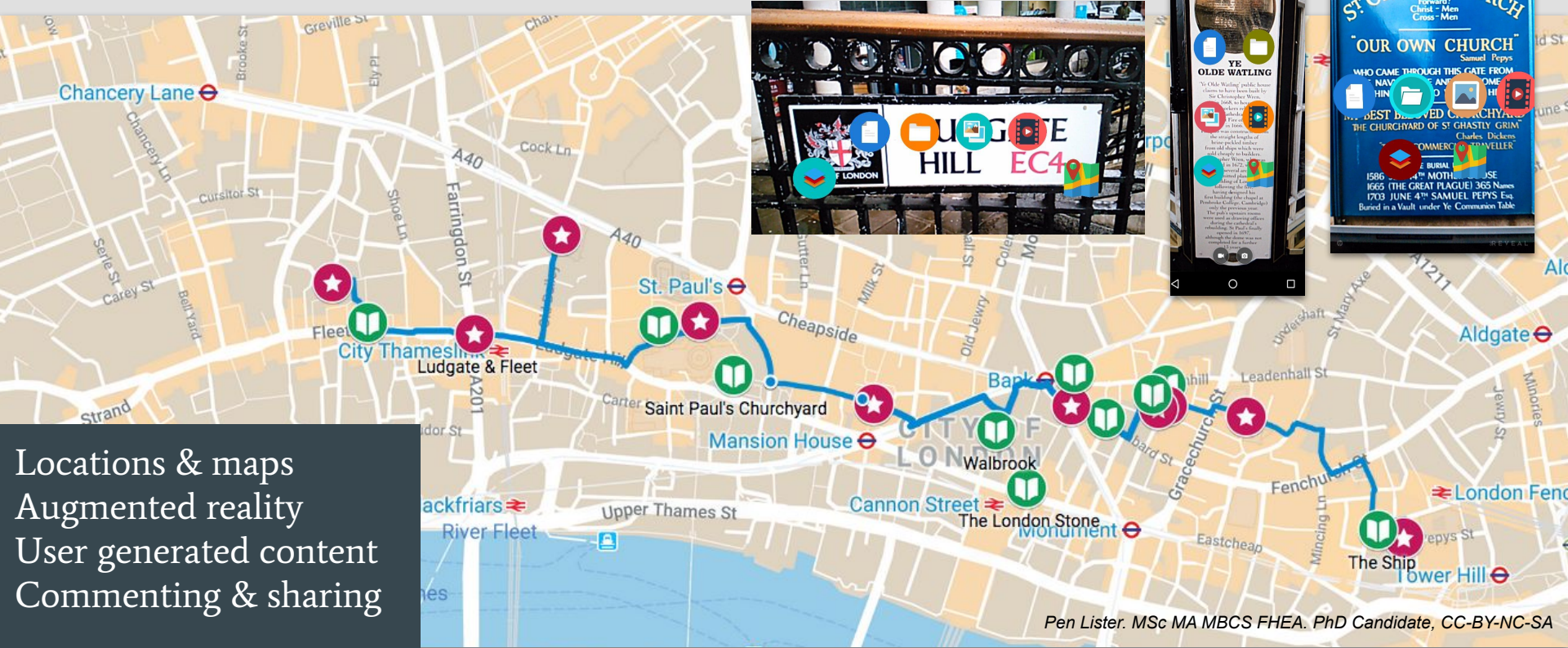
# Smart hyperlocal activities

- Community Maps in Hackney Wick, East London, UK
- Wood Street Walls artist's collective, London, UK
- Tokyo Paper Hunt, Japan
- [AR]T (Apple & New Museum partnership)
- Smart Learning Feedback Maps (concept)



# Smart Learning *in my research*

## Literary London AR interactive smart learning journey



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# Measuring a learning experience

Four categories (and levels) of 'experience complexity'<sup>1</sup> variation.

This provides clues for pedagogical relevance structures and approaches.

**We can plan for this.**

## TASKS & OBLIGATIONS

Doing tasks, fulfilling obligations, developing to understanding wider relevance and interest in tasks, requirements or expectations.

Discussing who does tasks, how technology works, what is required, developing to discussing relevance of task, location, topic to wider reflections, sharing content, knowledge and prior experiences.

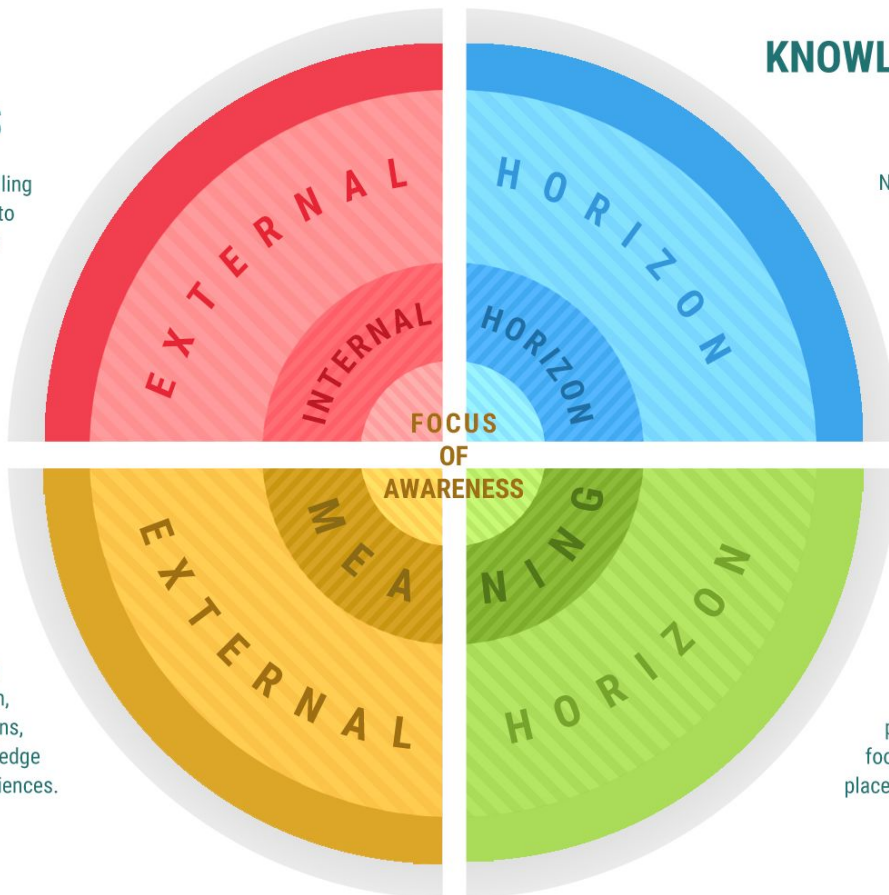
## DISCUSSING

## KNOWLEDGE & PLACE AS VALUE

No interest or engagement in topic, location or content (provided or made), developing to high engagement, content made, deep reflections of wider significance and value for place and knowledge.

Going to places to do tasks "and that's it", developing to high engagement with place, sense of being there, in the picture, following in footsteps, reflective sense of place in time.

## BEING THERE





# Pedagogy of experience complexity

A *'pedagogy of experience complexity' for smart learning* may provide a pragmatic way of understanding how we can apply the **DigComp 2.1**<sup>7</sup> to citizen smart learning journey activities for activity design and digital skills development approach.

*Pedagogy* is how we teach and plan for learning. If we plan for learning, it's useful to have a framework to understand what we are trying to achieve.

*The DigComp 2.1*<sup>7</sup> is a great example of a very useful digital skills framework.

This 'pedagogy of experience complexity' pedagogical guide draws on concepts from participatory pedagogies: creativity, inquiry, communication, motivation, networking, sharing...

These are viewed as essential 21st-century learning and employability skills.



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# Smart urban activity examples

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  - c. Can Technology Help Involve More Low-Income Residents in the Planning Process  
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