

Digital & Data Literacies for Inclusion of Marginalised Citizens in Learning Cities

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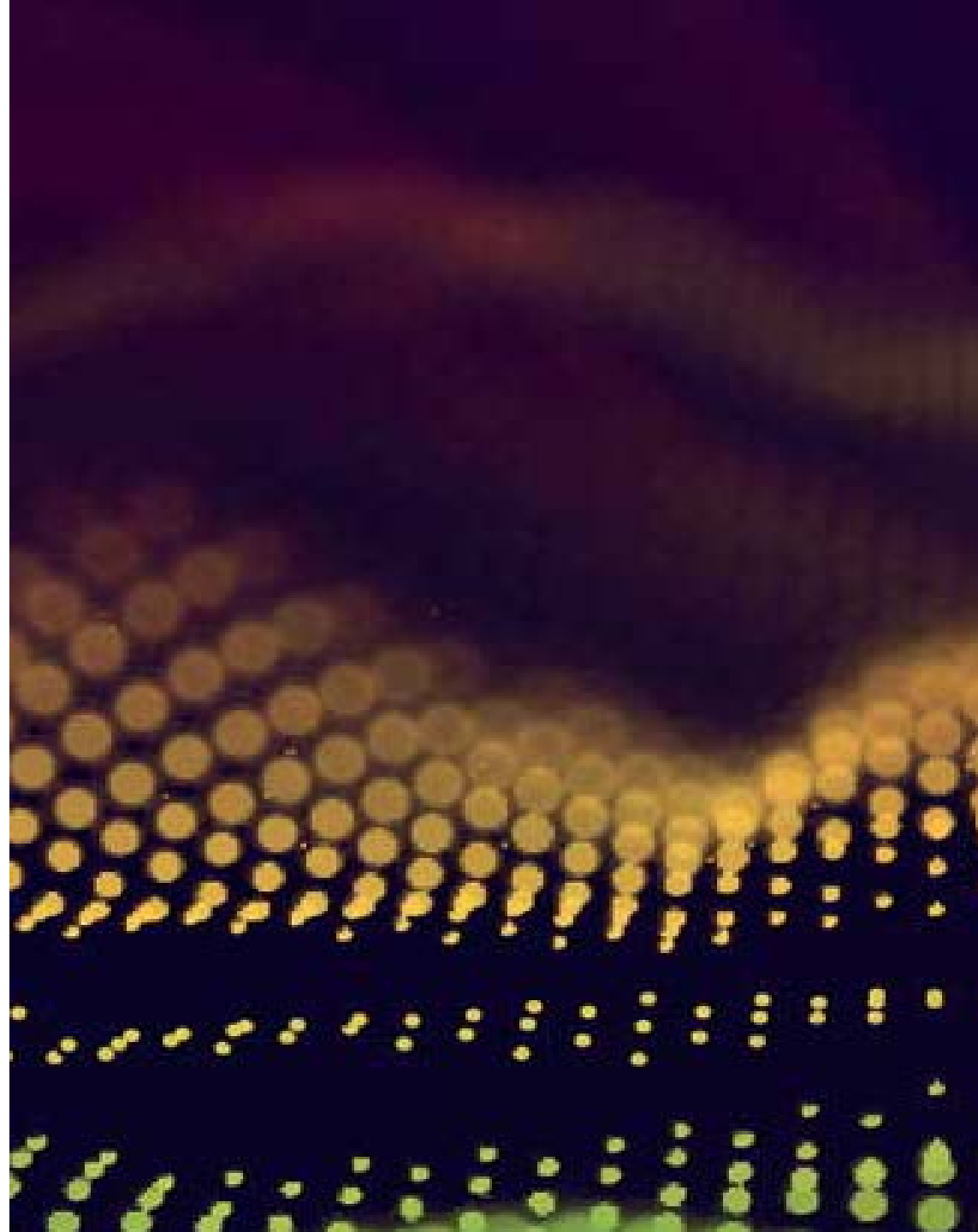


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Multi-method Inclusion Research

- Social Identity & Social Capital frames
- Symphonic Social Science
- Blurring Boundaries
- City Information Modelling approaches



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Lifewide learning in the city: novel big data approaches to exploring learning with large-scale surveys, GPS, and social media

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ABSTRACT
Despite UNESCO's Learning Cities agenda, which argues for the mobilisation of resources to promote education across all sectors and environments, there is little evaluative research on Learning City engagements which is both naturalistic and empirically rigorous. The research on informal adult learning in urban contexts is particularly sparse. This paper provides a case study of three distinct approaches to data collection amongst Glaswegian learning and lifewide literacies amongst Glaswegians, capturing rich data on learning activities; GPS trails that track movements of naturally occurring Learning City indicators; and some of which have revealed patterns of adult learning, for example, to situate inclusion within less tangible data. A triangulation in lifewide learning reveals

KEYWORDS
Lifelong learning; lifewide literacies; informal learning; widening participation

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Lifewide Literacies



“Literacy is the ability to identify, understand, interpret, create, communicate and compute, using printed and written materials associated with varying contexts. Literacy involves a continuum of learning in enabling individuals to achieve their goals, to develop their knowledge and potential, and to participate fully in their community and wider society.”

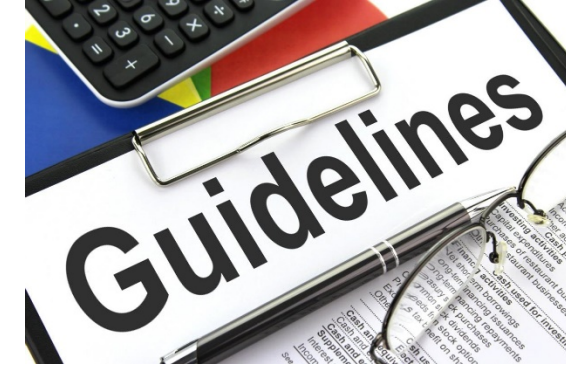
(UNESCO 2003, 1)

Our Briefing Paper



- Learning City (LC) & Smart City Frameworks: Digital skills agendas
- Operationalising Digital and Data Literacies?
 - Roots in info. & Media literacies
 - Shifting from competencies to empowerment/ enfranchisement
 - Data literacy symbiotically linked w/ digital literacy (*IoT, mobile apps, social media, open programming/ coding, hacktivism*)
- **Inclusion in Digital & Data Literacies**
 - *Digital Divides: Current issues & What next?*

Our DL Recommendations



Digital Literacies (DL) be further embedded in Learning Cities:

- 1. DL for promoting inclusively designed technology**
 - 2. DL to contribute to inclusive education for all**
 - 3. DL to employ a rights-based approach**
 - 4. DL as lifewide literacies leading to data empowered citizens**
(e.g. emphasising data security, online protection & privacy)
 - 5. DL as participatory, participant-led & accessible**
- DL does **NOT** require an 'upgrade' of skills, but a **CRITICAL** understanding
- ENGAGE** citizens co-creating ***the digital*** thru less formal learning

Vulnerabilities: Fourth Industrial Revolution

- Demographic & Intersectional Marginalisation
- We present risks along 4 critical lines:
(V1) of access & poor technical infrastructures;
(V2) of digitally marginalised groups & communities;
(V3) related to digital knowledge, literacies & practice;
(V4) vulnerabilities related to political will, policy development & economic priorities.



Case Study V1: *Giza governorate, Egypt* (Dr Ghaith Fariz, UNESCO)



Research Project: Innovative technology-enabled program

- 443 female participants (Microsoft funded)
- 200 girls & women (Weidong Group funded)
- **Literacy:** Integrated curriculum(Arabic/ Maths) cross-platform **digital app**
- **Empowerment:** Social, cultural & economic growth activities
- **REACH:** In mosques, NGOs, Health units, Youth centres, Schools
- **IMPACT:** 92% passed Adult Education Authority exam



Case Study V2: *Sanandaj, Iran & Manila, Philippines (Workers by Self-Design Team)*

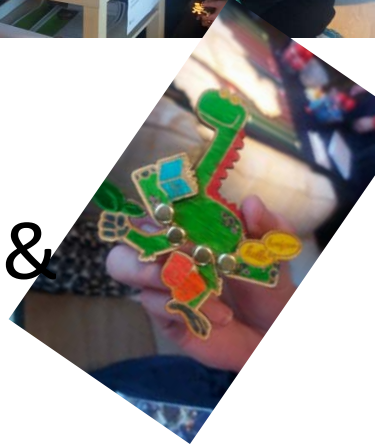


- *International Network* of academic/non stakeholders
- **Entrepreneurial training** when *threatened by unstable environments*
- **ID Gaps**, needs & potential interventions for women's digital literacies
- **Facilitating** women's active participation in workplace markets
- **Tech brings women-inventors together** to share experiences*
- **DL can impact aspirations & production** (*from traditional crafts/homemade products to tech-embedded clothing & eco-tourism*)

Case Study V3: Glasgow & Stirling, Scotland

(Dr Greg Singh, U.of Stirling, Ms. Joe Hall, Creative Stirling w/ Urban Big Data Centre, Glasgow)

- **UBDC Research Centre** promoting novel data usage to improve lives (*e.g. tech streams*)
- **#LifeinDataStir Research Network**- map data literacy, policy & open data innovation (*e.g. Wikimedia UK; Data Lab; Cities Alliance...*)
- **Creative Stirling Social Enterprise** evolving practice & new digital needs of creative industries (*e.g. Coder Dojo, Maker Labs & STEAM*)
- **Paradigm-shifting: Policy for robust, learnable Open Data infrastructure in UK** (Singh, 2019)



Case Study V4: Singapore's *SkillsFuture* Movement (Dr Michael Fung & Team)



- **UNESCO UIL- IAL Singapore workshop:**
Monitoring lifelong learning in face of transforming skills globally
- ***SkillsFuture* national skills strategy** (2015 <http://skillsfuture.sg>)
- **Workforce develop./ enterprise transformation** in face of **disruption**
- **MySkillsFuture portal:** individualised learning/career profiles, labour market information, training aligned w/ local industry needs
- **Predictive recommendations-** training courses, job openings*

Digital & Data Literacy Lessons we are learning...

- Digital Literacy= Data Empowerment 😊
Beyond 'competencies', simple access issues & formal structures
- Who is left out?: Need to capture less formal learning
- Reaching IN: Locally- Libraries, museums, communities, WBL, online
- Participation metrics & more holistic pictures;
 - *Triangulation, Interdisciplinarity, Stakeholders, Flexibility & Impact*
- ***Need citizens to WANT to engage, feel heard, be included in decisions & implementation of tech- WITH not ON!***
- Privacy/ security tensions w. push for openness/transparency

