

Surfacing Automation:

Inventive pedagogies in a community technology centre

Gwénaëlle André, Saba Ghezili, Rajeeta Samala
Nathalie Sinclair, Suzanne Smythe

Global Media Education Summit
3 March, 2023



Automated Literacies Project

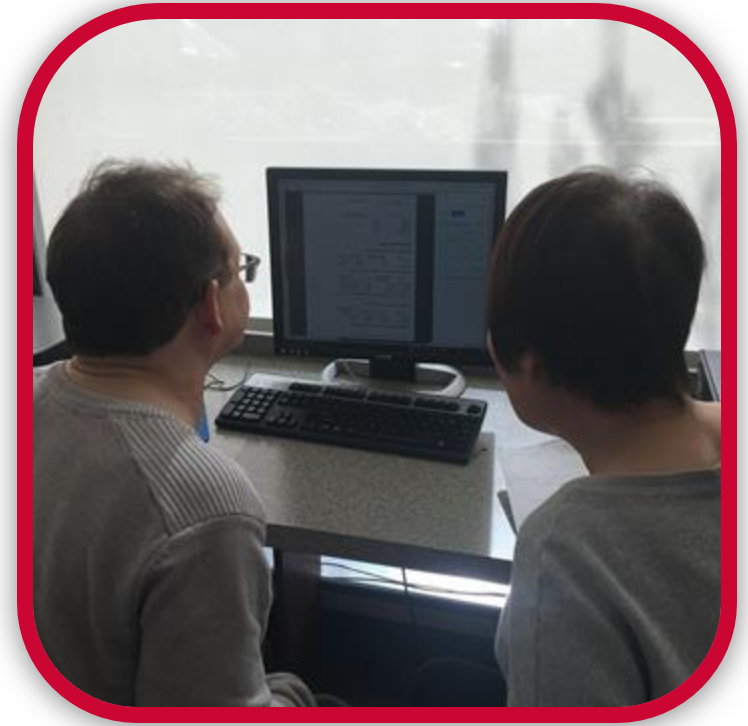
This study aims to:

- Document the experiences and effects of everyday automation in a community-based setting
- Rethink literacy theories and pedagogical approaches that take up automation.



Background

- 2 weekly drop-in digital cafés
- Just-in-time digital literacy, employment search support, form-filling
- Learners from diverse backgrounds, cultures, digital abilities
- Over 80 unique members since April 2022
- Multilingual volunteers with strong tech skills



Concepts we work with

- **Automation:** The technique, method, or system of controlling a process by reducing human intervention to a minimum (Allied Media, 2018).
- **Algorithms:** “Algorithms need not be software: in the broadest sense, they are encoded procedures for transforming input data into a desired output, based on specified calculations. The procedures name both a problem and the steps by which it should be solved” (Gillespie 2014, p. 167).

Approaches we're experimenting with

Surfacing Algorithms (Cellard, 2020)

“Surfaces are important not in themselves but for what they potentially open up, and for what they disclose. But they are also important for what they hide, and for the deceit that they can practise on us. In their transparency they specify nothing but give us access to a world of objects; in their opacity they specify the outward forms of these objects while yet closing off access to their interiority” (Ingold, 2017, p. 102).

Technicity (Simondon, 1958)

Algorithms as technical objects enfold culture, politics, society...

“Any given technical object – for example, a mobile application – functions to interlace social, political, economic, and cultural dimensions. As such, technicity is crucial for a rigorous understanding of the possibilities of collective life – the political task par excellence” (Cote & Pybus, 2016, pp. 86-87).

In the case study we present, we will be discussing how algorithms surface in the cafe

Case study: Employment application



As a Booking Clerk working with a Medical Imaging department you will:

- Perform scheduling and booking functions for a variety of patient appointments for designated areas within Radiology.
- Support the Medical Imaging team by performing duties such as:
 - Arranging times with patients, doctor's offices, nursing units, physicians, technical staff and surgical/medical daycare;
 - Making follow up appointments;
 - Locating applicable images/films prior to appointments;
 - Rearranging schedules to meet changing demands/requests;
 - Preparing and confirming patient information;
 - Entering booking, patient and image/film information into radiology and hospital computerized and/or manual booking and patient information systems;
 - Filing requisitions for all bookings;
 - Acting as receptionist to support the delivery of patient care; and
 - Ensure client/family needs are met above all other concerns.

QUALIFICATIONS:

Education & Experience

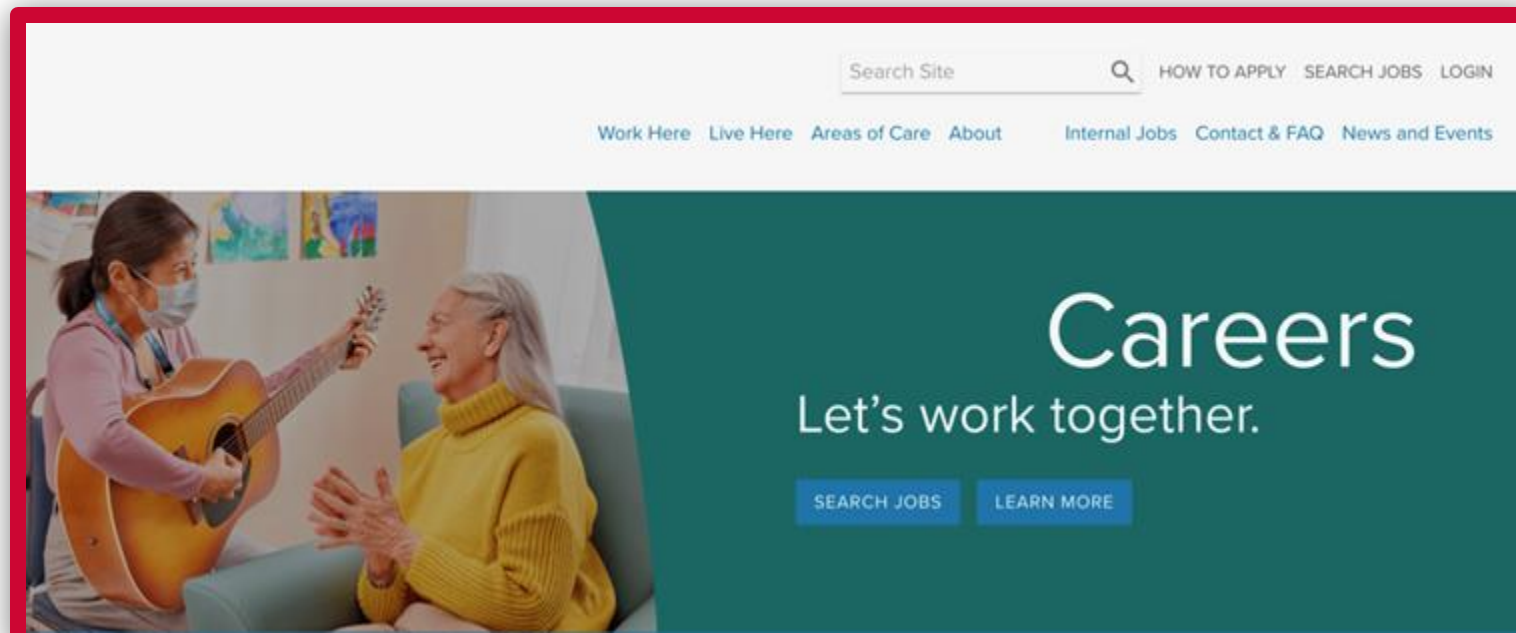
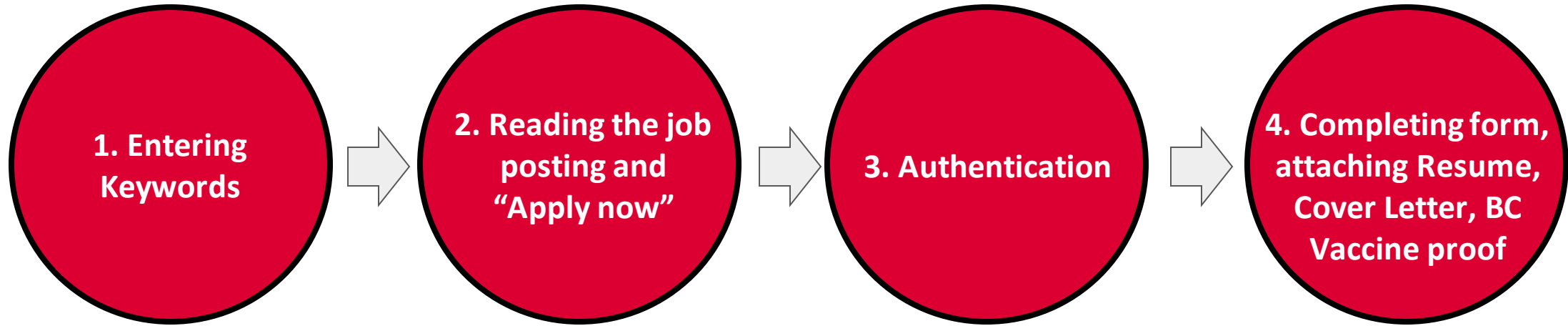
- Grade 12, two (2) years' recent related experience or an equivalent combination of education, training and experience.

Knowledge & Abilities

- Ability to keyboard at 40 wpm.
- Knowledge of medical terminology.
- Ability to communicate effectively both verbally and in writing.
- Ability to deal with others effectively.
- Physical ability to carry out the duties of the position.
- Ability to organize work.
- Ability to operate related equipment.

The hours of work including days off and work area may be subject to change consistent with operational requirements and the provision of the Collective Agreement and applicable statutes. Successful applicants may be required to complete a Criminal Records Review Check.

Online Job Application skills



The 4th step

- Adjusting to the employer's requirements: resume, cover letter, Proof of Vaccination
- Adjusting to the algorithm's requirements (for both employer and applicant): Have the required documents, match wording on job posting with resume/cover letter.

Analysis

- Not a lack of qualification
- Datafication normalizes trajectories
- Who benefits from this datafication? How is this discriminating? What is produced?



Questions this story opens up for defining and measuring digital literacies

- Tension between getting the job and gaming the system. This is a tension for tutors in that there are always time pressures; focus on the AI doings, or just get the application in?
- What about the alienation and arbitrariness when we are implicated in data surveillance, in what are sometimes unfair and obscure automated decision-making processes?
- How do these gamings, changing 'who we are' to match a perceived algorithm preference, reconfigure theories of agency and individual competence that are central to digital literacy measurements?

Potential “new” pedagogies

- Technical skills alongside understanding of the processes involved.
- Peer collaboration under the guidance of staff/volunteers
- Surfacing technologies as ‘lively’ and ‘productive’ rather than neutral



References

- Allied Media (2018). *People's Guide to Artificial Intelligence*. Detroit: And Also Too.
<https://store.alliedmedia.org/products/a-peoples-guide-to-ai>
- Cellard, L. (2022). Surfacing Algorithms: An Inventive Method for Accountability. *Qualitative Inquiry*, 16.
- Coté, M., & Pybus, J. (2016). Simondon on Datafication. A Techno-Cultural Method. *Digital Culture & Society*, 2(2), 75–92. <https://doi.org/10.25969/mediarep/989>
- Ingold, T. (2017). Surface Visions. *Theory, Culture & Society*, 34(7–8), 99–108.
<https://doi.org/10.1177/0263276417730601>
- Gillespie, T. (2014). The Relevance of Algorithms. In T. Gillespie, P. J. Boczkowski, & K. A. Foot (Eds.), *Media Technologies* (pp. 167–194). The MIT Press. <https://doi.org/10.7551/mitpress/9780262525374.003.0009>
- Simondon, G. (1958). Du mode d'existence des objets techniques. AUBIERFLAM.
- Smythe, S., Grotlüschen, A., & Buddeberg, K. (2021). The automated literacies of e-recruitment and online services. *Studies in the Education of Adults*, 53(1), 4–22. <https://doi.org/10.1080/02660830.2020.1855870>