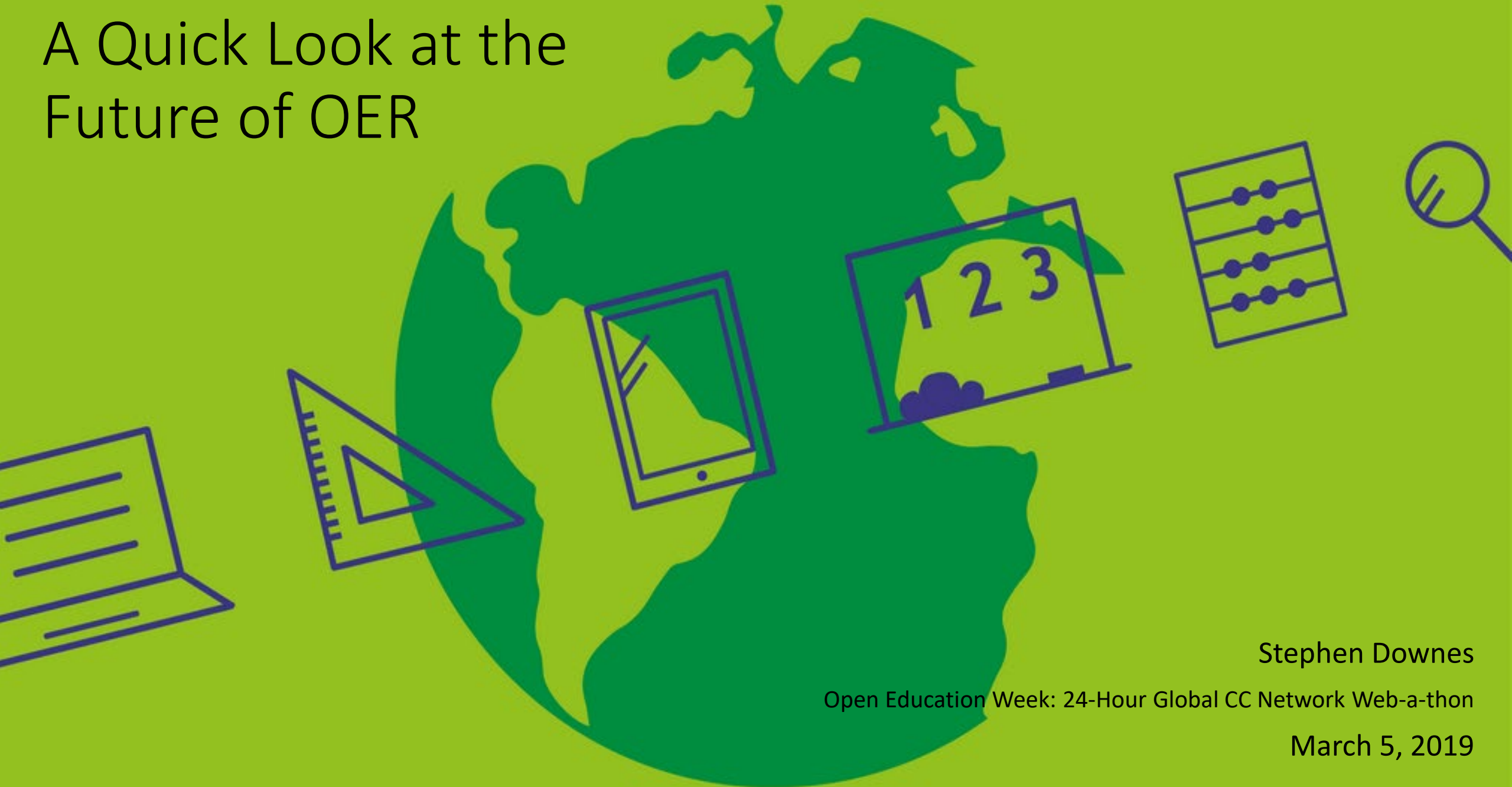


A Quick Look at the Future of OER



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Open Education Week: 24-Hour Global CC Network Web-a-thon

March 5, 2019

Cloud

- GitHub-like environment for OERs
 - Eg. <https://jupyter4edu.github.io/jupyter-edu-book/>
- Fork or Clone and download / use or modify as needed / upload or merge back into original -
https://www3.ntu.edu.sg/home/ehchua/programming/howto/images/Git_Rebase1.png
- Create and run applications in cloud-based computers
- Virtualization brings cloud to the desktop (eg. Docker containers)
- More: <https://www.downes.ca/presentation/481>

Open Data

- Open Data Initiatives - <https://open.canada.ca/en/open-data>
- Jupyter Notebooks
 - To run requires download and install Python, otherwise:
 - MyBinder is a third option that runs Jupyter notebooks on a cloud server (Docker). <https://mybinder.org/>
 - Example: <https://mybinder.org/v2/gh/jvns/pandas-cookbook/master> (Note: takes a few minutes for the Docker container to be created)
- ‘Headless’ websites / Decoupled CMS - <https://pantheon.io/blog/headless-websites-whats-big-deal-decoupled-architecture>

AI

- OpenAI - <https://openai.com/> - “open-source software tools for accelerating AI research, and release blog posts to communicate our research.”
- Open AI Gym - <https://gym.openai.com/docs/> (notice git clone)
- Cloud AI - <https://cloud.google.com/products/ai/>
- Computer Vision API example - <https://www.downes.ca/files/msindex.html>

CARE

- Content Addressable Resources for Education (CARE)
 - How hashgraphs work - <https://hackernoon.com/an-overview-of-hashgraph-b0900a1fd7bf> eg. Swirlds <https://www.swirlds.com/>
 - Distributed/decentralized resource networks like IPFS - <https://ipfs.io/>
 - More: <https://el30.mooc.ca/cgi-bin/page.cgi?module=9>
- CARE Package and CARE Net
- Toward consensus - <https://el30.mooc.ca/cgi-bin/page.cgi?module=11>

How We Will Use These

- Creation and use of OERs merge (OER the product of a community, not publishers)
 - Eg. <https://github.com/cc-archive/OER-strategy-with-Open-Ed-Orgs>
 - Eg. <https://github.com/topics/oer>
- Licensing issues backgrounded - it's on the CARENet, it's an OER
- Use live data for real-world applications, local or downloaded data for training and simulations

What Skills and Knowledge We Need

- We need to think in terms of data (and networks), not documents
- We need to think in terms of environment and experiences, not content
- We need to learn to co-create cooperatively (not on-demand, not (necessarily) collaboratively)