Canada School of Public Service | École de la fonction publique du Canada

CSPS·EFPC
Digital Academy
Académie du numérique

2019/03/04

Learn | Network | Succeed
Apprendre | Réseauter | Réussir

Canada

Digital Academy: what and why

- **Concept**

  A teaching organization held at the Canada School of Public Service (CSPS) in partnership with the Office of the Chief Information Officer (OCIO) and the Canadian Digital Service (CDS)

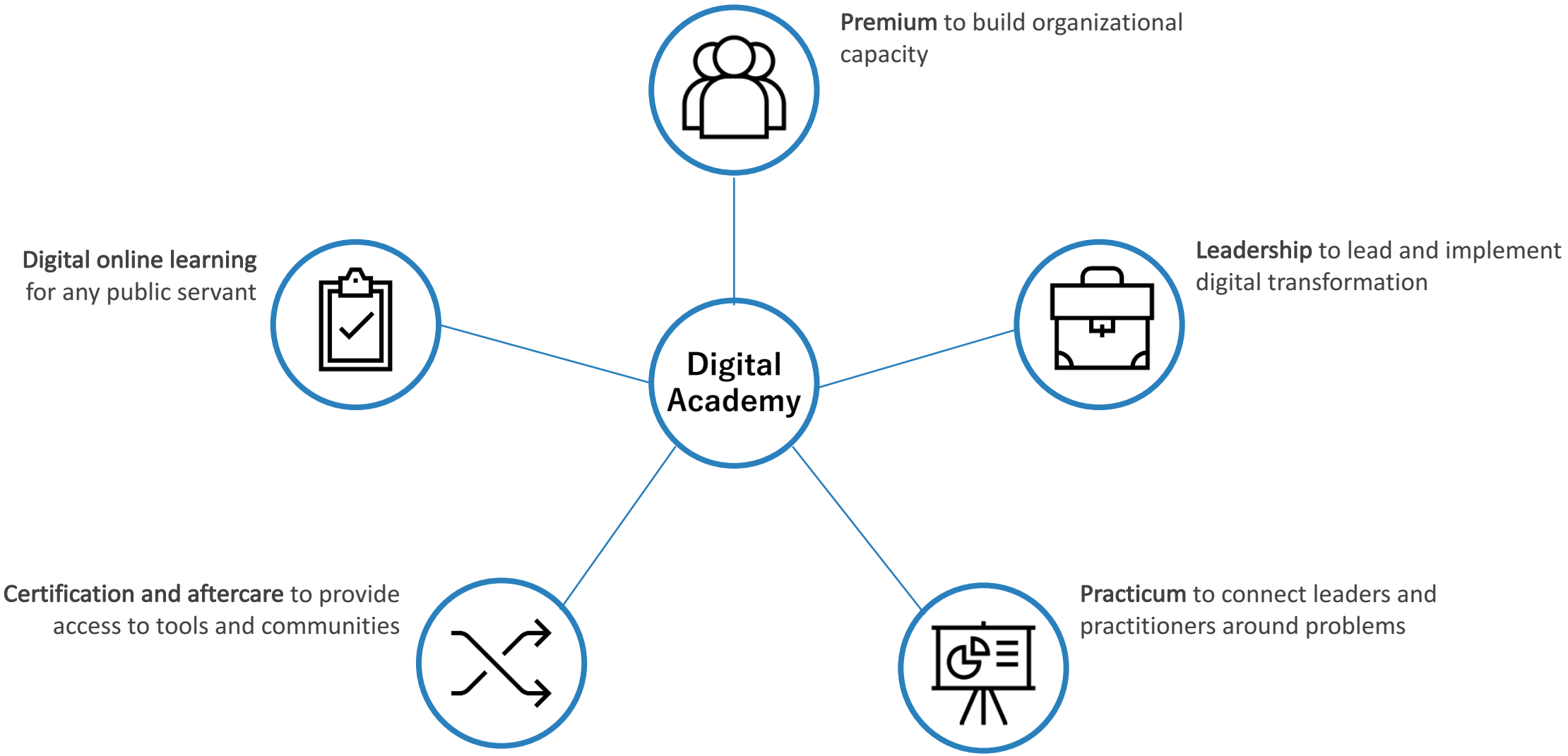
- **Objectives**

  1. Work with partners and experts to develop in our people the foundational, specialist and leadership digital skills needed to meet expectations of Canadians

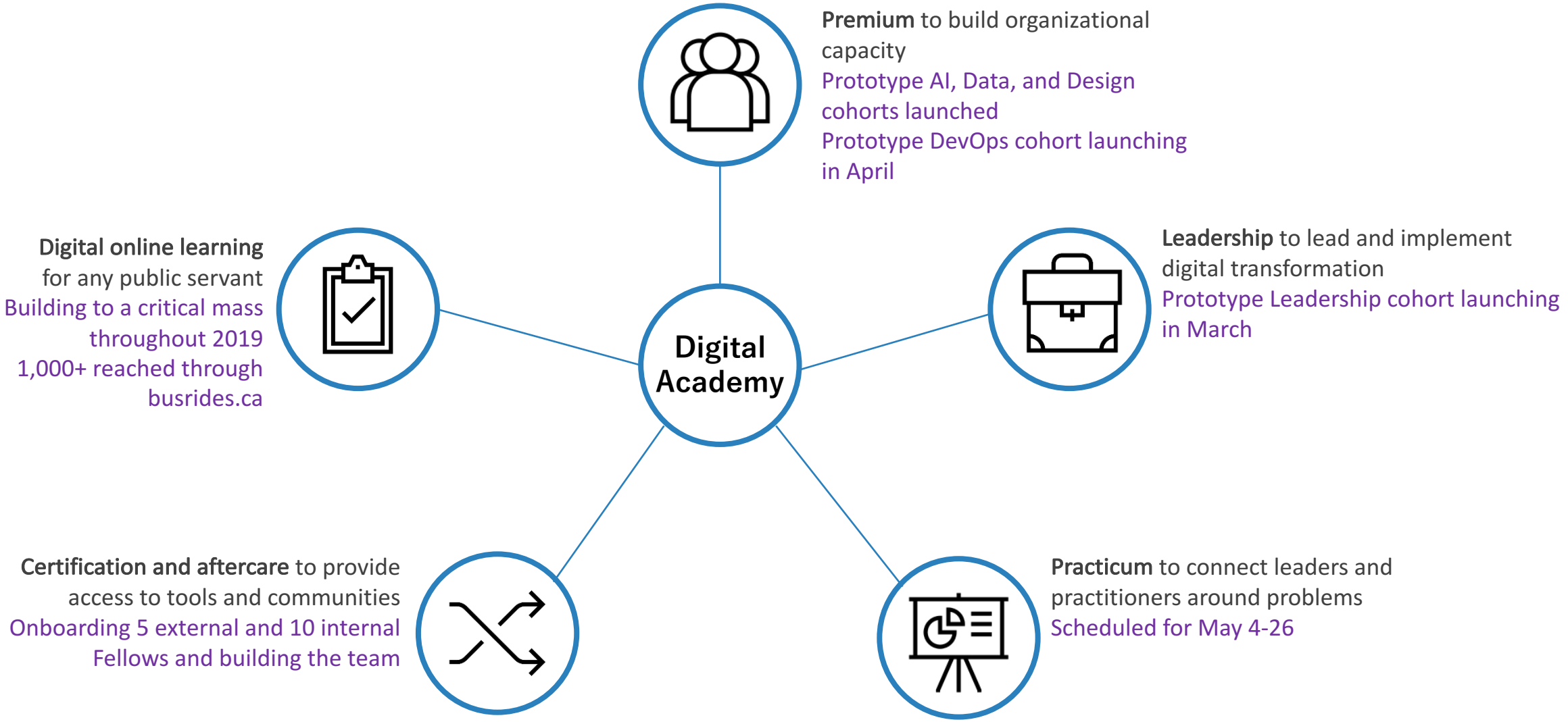
  2. Build diverse and inclusive communities and networks to support continuous and social learning

  3. Re-focus learning on the practical application of tomorrow's technology and tools

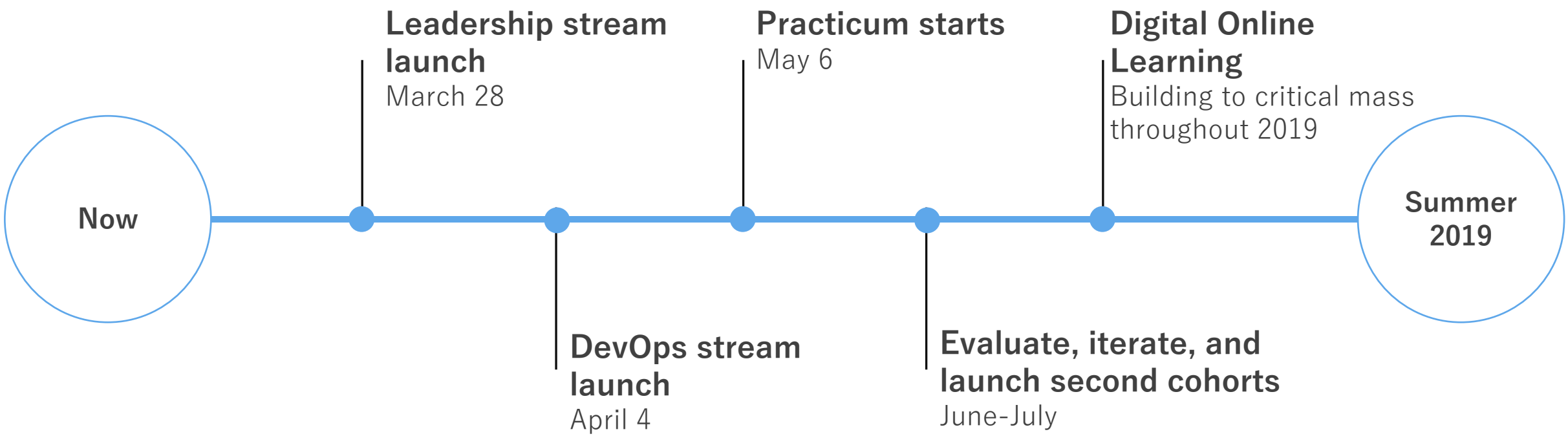
Digital Academy: overview



Digital Academy: update

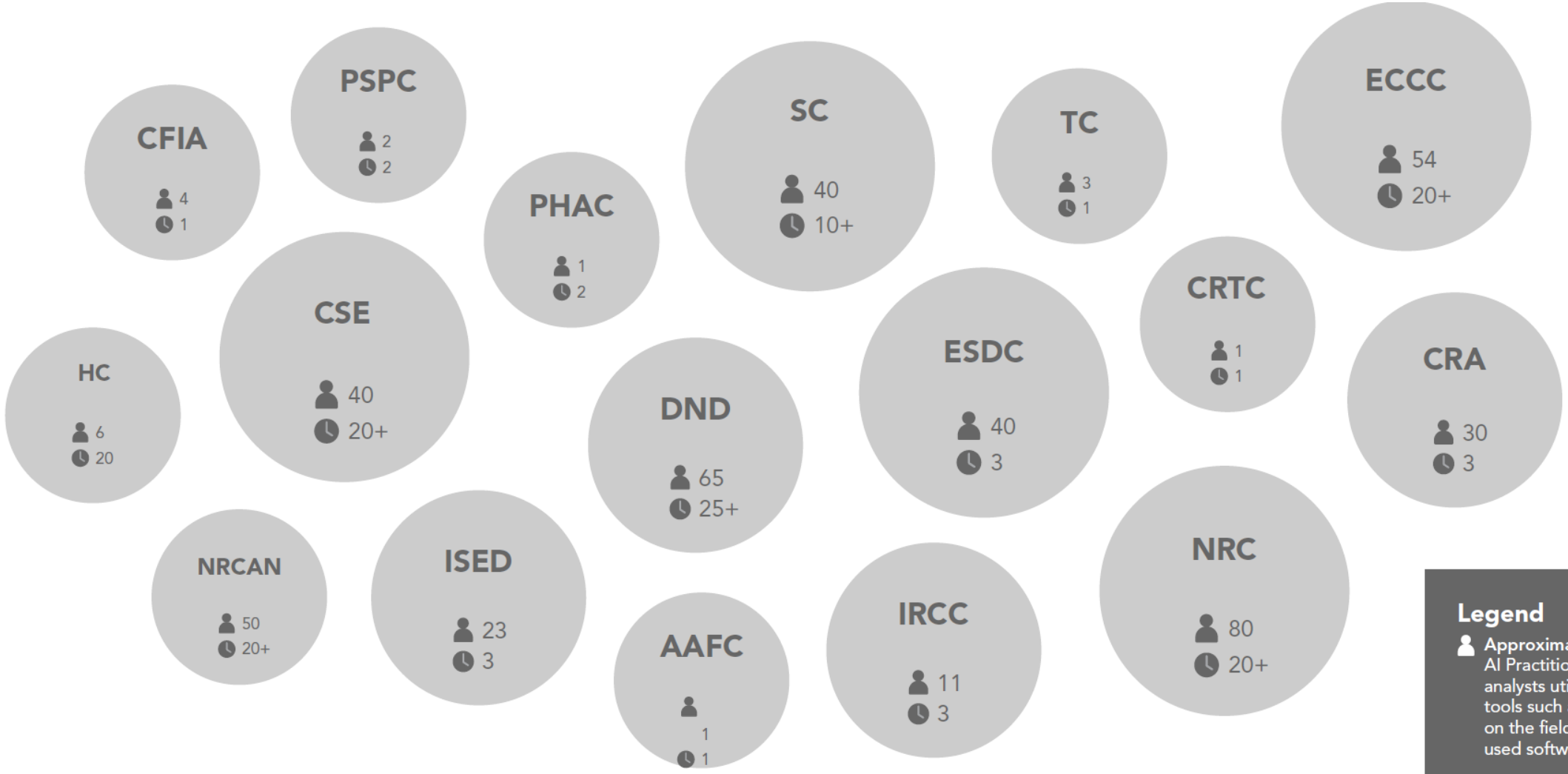


Digital Academy: timeline



Specialist and leadership capacity for 200-300 learners in 2019 (~15 per stream per cohort)
Scale through partnerships to reach up to 1,000+ in-depth learners per year
Reach through Digital Online Learning to reach 10k-100k+ public servants

Who's working with AI in the GC



Legend

Approximate AI Practitioners
AI Practitioners are defined as analysts utilizing the latest in AI tools such as machine learning on the fields most commonly used software (e.g., R, Python).

Approximate number of years department or agency has been conducting AI related work

AAFC: Agriculture and Agri-Food Canada CFIA: Canadian Food Inspection Agency CRA: Canada Revenue Agency CRTC: Canadian Radio-television and Telecommunications Canada
CSE: Communications Security Establishment DND: National Defence ECCC: Environment and Climate Change Canada ESDC: Employment and Social Development Canada
HC: Health Canada IRCC: Immigration, Refugees and Citizenship Canada ISED: Innovation, Science and Economic Development Canada PHAC: Public Health Agency of Canada
PSPC: Public Services and Procurement Canada NRC: Natural Resources Canada NRCAN: Natural Resources Canada TC: Transport Canada SC: Statistics Canada

AI capacity building in the GC

AI capacity is emerging across a number departments and agencies thanks to staff acquiring these skills during their personal time.

These passionate employees are applying these skills to their work, resulting in increased effectiveness.

Learning AI is done with **free online resources.**

AI practitioners have all relied on the vast and ever growing online learning resources, such as courses, blogs, academic literature, and message boards. They also expect to continue to use these resources for their future learning needs.

Developing and implementing AI solutions is done on **freely available open source software.**

AI software like R and Python are the same tools being used and supported by academia and leading AI companies such as Element AI in Montreal and Google.

**This slide and last: the work of Mathieu Audet, which can be found on GCcollab through the GC Entrepreneurs group*

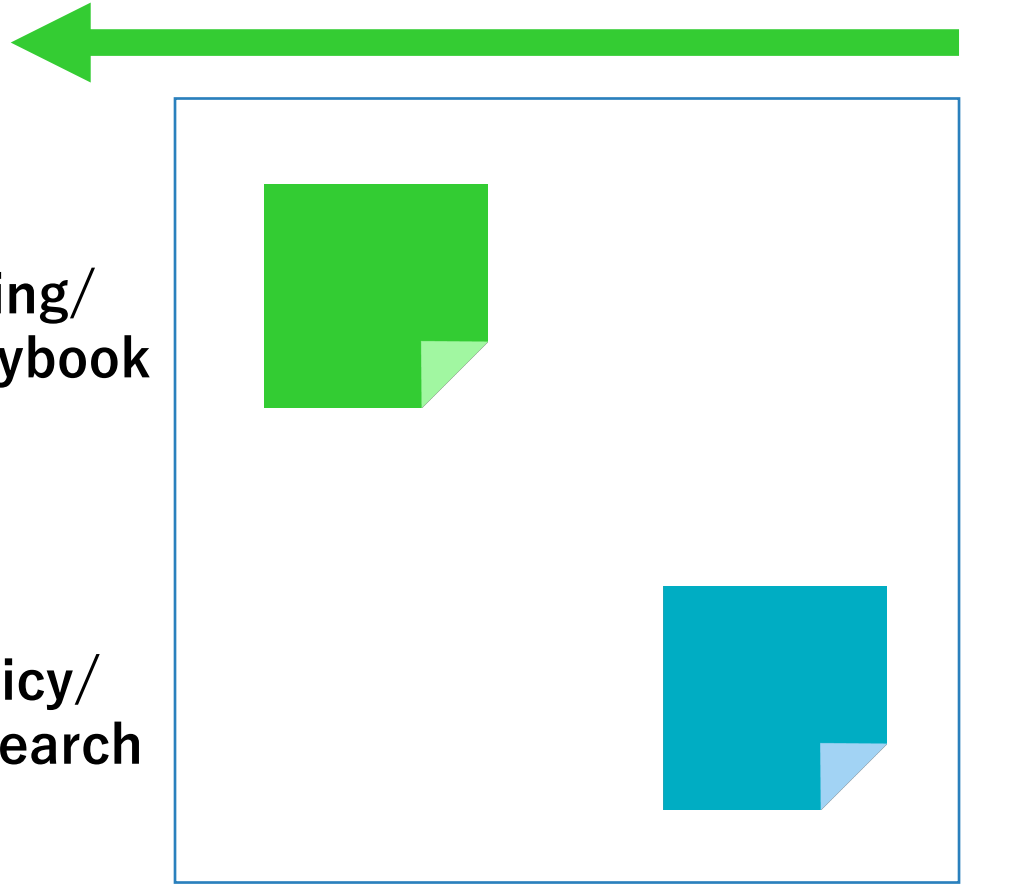
Draft AI/ML curriculum

1. Data Science Universals
2. Basics of Programming
3. Statistical and Math Foundations
4. Data and Information Architecture
5. Data Collection & Processing
6. Data Exploration & Visualization
7. Data mining
8. Classification and value estimation
9. Clustering
10. Unstructured Data & Sentiment Analysis
11. Introduction to deep learning

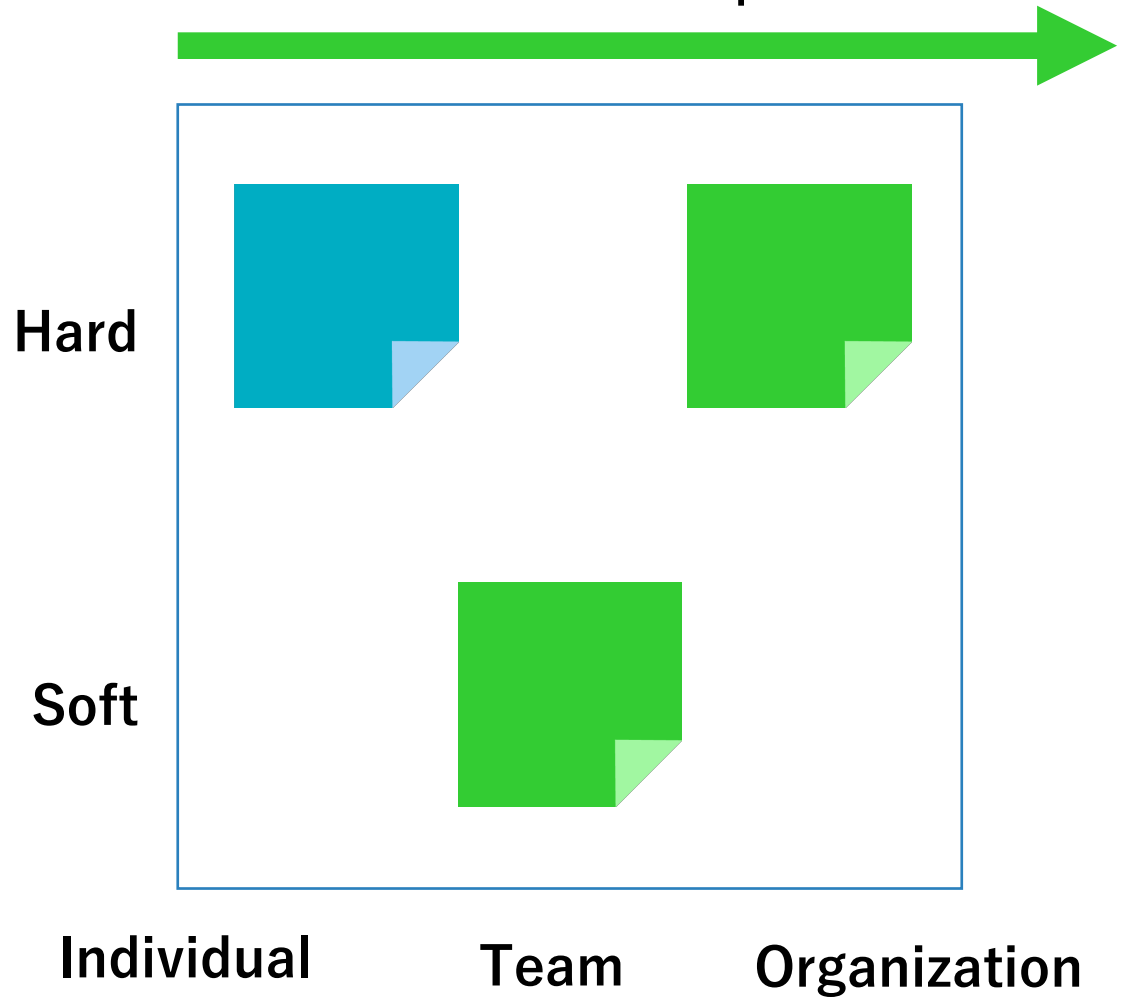
Workshop

10 mins per map

Resource map



Skill map



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