

Statistics Canada is using data science and analytics as key methods to provide more value in the products and services it delivers to Canadians. With data science and cloud technology strategies in place, the Agency is making headway, however, fully integrating these modern technologies and methods into the day-to-day production pipelines of official statistics requires a cultural transformation. In Statistics Canada's experience, the underlying foundation to bringing data science, new technologies and new methods into the mainstream has been to democratize programming by mobilizing talent throughout the agency. This notion relies on providing the tools, support and resources to programmers from a variety of backgrounds and disciplines that extend beyond traditional roles. This cultural shift is being driven intentionally with intersecting pillars that include new governance models, partnerships, employee empowerment, investment and a commitment to experimentation and continuous improvement. This paper outlines the critical role that democratizing programming has played in incorporating data science and analytics into production, the contributions of governance, partnerships, people and investment to effect this transformation, the progress achieved so far and the lessons learned along the way.

Keywords: culture, programming, data science, production.