

REIMAGINING CARIBBEAN EDUCATION AND SKILLS DEVELOPMENT IN THE AGE OF GENERATIVE ARTIFICIAL INTELLIGENCE AND THE 5TH REVOLUTION

A Technology-Literate Workforce for the Caribbean: The DWITTS Data Science Institute Approach

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Who We Are

In the rapidly advancing technological landscape of the 21st century, the Caribbean region needs to reimagine its educational and skills development framework to fully adapt to the challenges and opportunities presented by Generative AI and the 5th Industrial Revolution. Data science has emerged as a pivotal field that can imbue individuals with the necessary skills to navigate this new era of innovation and disruption. One forward-facing approach to addressing this need is the establishment of a DWITTS Data Science Institute in Caribbean nations. This paper explores how the institute can catalyze the transformation of education and skills development in the region to foster economic growth, technological advancement, and global competitiveness.

Empowering the Caribbean Workforce

The DWITTS Data Science Institute proposes a comprehensive model for training facilitators and students in data science fields, thereby equipping them with the expertise required to lead workshops in middle and high schools. The institute promotes collaborative learning, deepens understanding, and enhances communication skills by engaging students in teaching their peers. Students gain technical proficiency and develop essential soft skills such as public speaking, teamwork, and leadership. These skills are crucial in preparing the Caribbean workforce for the digital economy's demands and the dynamic job market shaped by Generative AI and the 5th Industrial Revolution.



1. BENEFITS TO LOCAL COMMUNITIES AND THE COUNTRY

1.1 Enhanced Workforce Development

Establishing the DWITTS Data Science Institute will generate a pipeline of skilled professionals in data science, meeting the growing demand for experts in fields such as artificial intelligence, machine learning, and data analytics.

.2 Knowledge Transfer and Innovation

The institute facilitates knowledge transfer from experienced facilitators to the younger generation by engaging with middle and high school students.

1.3 Community Engagement and Empowerment

The workshops conducted by institute facilitators and students in schools serve as a valuable outreach program.

1.4 Entrepreneurship and Economic Resilience

Equipping individuals with data science skills via the institute empowers them to explore entrepreneurial opportunities and contribute to economic resilience.

1.5 Global Competitiveness and Talent Retention

Establishing DWITTS Data Science Institutes in Caribbean countries as hubs of excellence in data science education and training has significant potential to attract international acclaim and investement and helps retain local talent within the region, mitigating brain drain and fostering a conducive environment for innovation, research, and development.

2. BENEFITS TO GOVERNMENT AND BUSINESS

2.1 Cost Savings and Efficiency

By having a pool of trained facilitators and students locally available to conduct workshops and training sessions, both government and businesses can save costs when hiring external consultants or experts.

2.2 Cultural Familiarity and Contextual Relevance

Local facilitators and students from the DWITTS Data Science Institute will possess a unique understanding of the cultural context and challenges faced within the Caribbean region.

2.3 Collaboration and Partnerships

The institute promises to furnish a platform for collaboration between government bodies, businesses, academic institutions, and other stakeholders.

2.4 Talent Development and Retention

Both government and businesses will have the ability to nurture local talent by investing in data science education and skills development through the institute.

2.5 Regulatory Compliance and Ethical Considerations

Regulatory compliance and ethical considerations are paramount to rapid data science and AI technology advancements.