

Job Description



Job Title:	Senior Manager, Scientific Outreach
Department:	Institute for Quantum Computing
Reports To:	Director, Communications and Strategic Initiatives
Jobs Reporting:	Manager, Events and Outreach
Salary Grade:	USG 13
Effective Date:	September 2020

Primary Purpose

Responsible for developing and leading IQC's international scientific outreach strategy and all programs which support IQC's strategic objectives related to raising awareness, education, recruiting HQP and top graduate students and reinforcing international reputation as source of quantum information.

Responsible for supporting IQC's Executive Director in developing strong relationships with all levels of government to demonstrate the value of their investment, cultivate future support, and help secure the financial sustainability of IQC.

Key Accountabilities

Establish the direction and priorities of IQC's world-class scientific outreach mandate and execute against those priorities:

- Develop, enhance and run IQC's multiple summer schools, conferences and workshops aimed at the very best international undergraduates, high school students (potential recruits)
- Develop new programs (e.g., Distinguished Lecture Series) featuring international scientists aimed at key academic and student audiences Showcase the science of IQC through high profile events and venues (e.g. AAAS, TEDx, international conferences) through speaking engagements, manning booths, workshops.
- Develop and manage summer intern program.
- Serve as a key representative to introduce IQC to multiple prominent visitors (international politicians, scientists, journalists) and educational tours for many academic institutions
- Collaborate with uWaterloo faculties of Math, Science and Engineering on outreach partnerships, mutually supportive programs that raise scientific awareness and quantum information specifically

Ensure scientific integrity is achieved/maintained for all marketing and communications materials (print and digital) produced to raise profile of IQC

- Support and collaborate with other members of IQC's Communications & Outreach team to provide guidance, input, and assessment of all the scientific information contained in all vehicles; help 'translate' complex scientific material for all audiences.
- Develop strategy and content for a world class Outreach section on the IQC website that will scale current activities for broader audiences.

Represent and support the growing industrial and government relations at IQC

- Work closely with the IQC Leadership on all elements of IQC's developing industrial outreach, training and relations strategies
- Establish and maintain relationships with industrial organizations to identify opportunities for collaborative research and training opportunities

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- Liaison and advise industry stakeholders on quantum-related research and education at IQC
- Facilitate campus visits, workshops and other events to enhance interactions between IQC researchers and industry stakeholders
- Build relationships with policy makers, government representatives and key staff in Ontario and Canadian governments
- Attend briefing meetings with key government personnel to inform, raise awareness, and interpret the benefits of IQC to those people
- Attend key events, meetings, forums and conferences where relevant government and industry representatives will be present
- Monitor news, policy development and key happenings in government that will help IQC understand political direction as it impacts scientific investment.

Play a key senior role in the recruiting strategy of IQC, a complex international strategy amid tough competition; contribute to the positive experience of grad students after they enroll.

- Position IQC – and the University of Waterloo - at the highest international level so the best students in the world will choose to attend the IQC graduate program
- Attend international grad fairs as a keynote speaker, and through other means, to ramp awareness of IQC and Waterloo as the premier place to pursue quantum science
- Maintain and enhance a large-scale, international student internship program
- Develop and manage graduate students who want to be involved in scientific outreach as part of their degree
- Manage an ever-growing body of student volunteers to support multiple outreach events and activities
- Sit on key IQC committees dealing with student awards.

Raise quantum awareness and IQC profile through outreach-focused communication strategies:

- Sophisticated website content development to reach international audiences about the value and benefits of IQC
- Advise on industry targeted brochures and other materials aimed at raising awareness and understanding of the impact of quantum science and the value of government investment for Canada

**All employees of the University are expected to follow University and departmental health and safety policy, procedures and work practices at all times. Employees are also responsible for the completion of all health and safety training, as assigned. Employees with staff supervision and/or management responsibilities will ensure that assigned staff abide by the above, and actively identify, assess and correct health and safety hazards, as required.*

Required Qualifications

Education

- A PhD in Math, Computer Science, Physics, or Engineering with a quantum information specialty

Experience

- Successful track record of working within a university, and a research institute, environment.

Knowledge/Skills/Abilities

- Ability to translate complex scientific concepts into lay terms for many audiences.
- Ability to inspire, engage students, teach/educate, and spark student interest in pursuing quantum science.
- Ability and skills to operate scientific equipment.

- Ability to develop and conduct technical scientific demonstration for educational and outreach purpose.

Nature and Scope

- **Contacts:** Excellent presentation skills are paramount. The incumbent must be dynamic presenter and able to teach complex scientific concepts in a simple, concise, entertaining and engaging way. The position requires building strong and respectful relationships with IQC's faculty and students. The incumbent must also demonstrate scientific credibility to interact with various research, industry and government stakeholders. The incumbent will also have to work with all members of IQC's Communications and Strategic Initiatives team, as well as maintaining and building relationships with various local and national outreach initiatives and teacher associations.
- **Level of Responsibility:** This position is responsible and accountable for the Institute's international outreach strategy, with results measured by increased number and quality of graduate student applications, tour requests, applications for summer schools and conferences, and feedback from many publics. This position is also accountable for deepening the Institute's ties with relevant government bodies and key personnel in support of IQC's long-term financial security.
- **Decision-Making Authority:** Responsible for a significant budget of \$400 000 dollars, outreach program decisions, and Outreach and government communication plans.
- **Physical and Sensory Demands:** Minimal exposure to disagreeable conditions typical of an educational position. Transport of scientific demonstration equipment will be sometimes required, but they are relatively small (less than 20 lbs). During the delivery of extended workshop and camps (e.g. QCSYS, USEQIP and SC), a higher than average educational and teaching responsibilities may lead to temporary fatigue.
- **Working Environment:** Minimal exposure to disagreeable conditions typical of a senior management position exposed to the time demands, complex decisions, dynamic environment associated with senior level responsibilities.