OPEN SCIENCE and the DECOLONIZATION of KNOWLEDGE Webinar
for the English Speaking Caribbean

(Moderator's Report)

A collaboration between the Canadian Commission for UNESCO and the UNESCO Chair in *Community-Based Research & Social Responsibility in Higher Education* in support of the creation of a UNESCO Recommendation on Open Science.

Agenda

Time & date: Thursday, October 15, 2020 (09:00 Victoria, BC; 11:00 Jamaica; 12:00 St. Catharines, ON; 12:00 Trinidad and Tobago, Barbados)
Moderator & Rapporteur: Dr. Ronald Young (Science Advisory Committee, Jamaica)

- Welcome by **Dr. Ronald Young**: 5 mins.
- Introducing the UNESCO Open Science Declaration by **Dr. Liette Vasseur** (Canadian Commission for UNESCO/Brock University, Canada): 20 mins.
- Two panelists' responses:
  - **Dr. Brian Cockburn** (Dean, Faculty of Science & Technology, University of the West Indies - St. Augustine Campus, Trinidad & Tobago) – 10 mins.
  - **Dr. Colin Depradine** (Dean, Faculty of Science & Technology, University of the West Indies - Cave Hill Campus, Barbados) – 10 mins.
- Comments by a few participants: 10 mins.
- Closing by **Dr. Ronald Young**: 5 mins.

Attendance:

95 participants registered. The actual number of attendees fluctuated between 40-50, with a peak of **54 attendees**.

Welcome

Dr. Young brought the proceedings to order at 11:10 EST. He welcomed all the speakers, participants and observers and thanked the organisers and the authors of the focus paper *"Open Science Beyond Open Access for and with communities: A step towards the decolonization of knowledge"*. He noted that:

- inherent tensions, between the strong push by developing countries to protect their intellectual property and ring-fence their indigenous heritage for economic benefit, and the growing global push toward truly Open Science, need to be addressed, but it is encouraging to note the existence of organisations like OCAP (Ownership Control Access & Possession).
- Lack of infrastructure and investment capital and a skewed trading system that inexorably shifts wealth from the periphery to the center, disadvantages developing relative to the developed economies, and often renders patents ineffectual.
- He suggested that the root problem might be in the way in which commodities are traded rather than in the commoditization of science.
- He also called for greater recognition and encouragement of community science aimed at sustainably advancing scientific involvement, literacy and awareness in the general populace.
- He invited Dr. Liette Vasseur to introduce the UNESCO Open Science Declaration.

Dr. Vasseur

- Referenced the *UNESCO 2017 Recommendation on Science and Scientific Research*, asking what exactly was meant by Open Science – openness of what, to whom, and stressing the importance of making scientific knowledge everywhere, available to all, and the need for adequate infrastructural and financial support for science.
- She called for the recognition that scientific research was not confined to work in academic and related enclaves, and for the inclusion in the definition of *scientific knowledge*, the often cavalierly excluded, established body of understanding accumulated by diverse indigenous peoples, using differing epistemologies.
- She emphasized that there was value in opening up access to text and data for Society in general and for traditionally excluded systems, fostering the co-construction of knowledge **with** communities, for communities.
- She encouraged funding of indigenous, Global South knowledge-sharing and fostering equity through the development of inclusion policies embracing non-white, non-male and non-Western persons and philosophies.
- She disapproved of the ivory tower approach, reinforced by the cabalization of scientific research and Journal Editorial Boards and the policies supporting them, and the general acceptance of scientific discourse shrouded in jargon, indecipherable even to trained scientists and inaccessible to many.
- She espoused instead, the move towards knowledge-sharing and the decolonization of research and teaching in Higher Education. Often invisible or poorly apprehended barriers to access need to be recognized and removed.
- Dr. Vasseur reminded us that this series of Webinars would continue through November, culminating in the submission of a Draft Report to the Executive Committee of UNESCO in March 2021.
- She asked us to bring the focus paper *"Open Science Beyond Open Access for and with communities: A step towards the decolonization of knowledge"* to the attention of our National Commissions and ask for their support, and prompted us to organize discussions among diverse groups to provide feedback in time for inclusion in the Draft Report.

Dr. Cockburn

Noted that:

- Historians and Social Scientists should be brought into our discussions as their expertise could enrich and bring needed perspectives to the discourse.
- The Covid-19 pandemic had led to a degree of recolonization with enabled, entrenched institutions exploiting the gaps in less well-endowed institutions created by the dislocations due to isolation and distancing protocols.
- To advance our scientific agendas, we will need to establish equitably functioning Professional-Private-Public, North-South, South-South and in-country partnerships.
- Policies and actions should not be ephemeral but should be underpinned by well established, stable and sustainable mechanisms and funding.
- The principle of internships of Higher Education students with industry should become entrenched if we wish to foster openness between community and academia.

- Representatives appointed to diversified Boards governing publications and the conduct of Science, should not be just token appointees from different constituencies, but should be able to gain respect for their constituencies and be capable of bridging the divide separating different communities: scientific and non-scientific, developed and developing countries, conventional and indigenous knowledge systems.
- The fact that Universities are increasingly being called upon to become entrepreneurial institutions must be recognized and treated with.
- Open Science is important for ensuring ease and equity in communication of knowledge, but there is the danger of simply replacing an established clique with a novel one comprising previously excluded group(s).
- Re the focus paper (Chang, Hall, *et al.*) Consideration #2: Local libraries should not be just repositories but should also serve as Open Science publishing houses.
- Re Consideration #13: criteria should be established for evaluating the worth of published articles on the basis of the impact of the work rather than the impact factor of the Journal.
- The democratization of Science is an important effort and there are positive indicators that it could be successful.
- An Open Math Fair in Trinidad & Tobago had, surprisingly, excited wide-spread interest had been very well attended, and an open "Bioblitz" effort to engage the general populace in paying attention to the flora and fauna of the country had resulted in the identification of a new species of snake.
- Some voices are raised but are simply not heard. The scientific community should be engaging more fulsomely in communicating via social media using Facebook, Twitter, Instagram etc.
- The question was raised of the capacity of scientists to communicate scientific issues with clarity and without jargon, and became a point of discussion.

Dr. Depradine

- Bemoaned the lack of funding – noting that funding was often tied to the recruitment of outside consultants and sourcing of donor-related equipment, so that funding simply returned to the donors whilst the expertise built also returned in the form of the consultants, who often learn more than their local counterparts.
- He noted that in Barbados, Science was an afterthought – there was no Ministry with Science as a primary portfolio, and enrolment in the Science & Technology Faculty had been falling precipitously for some time.
- Students in schools were amazingly ignorant regarding the involvement of women either in Science in general or in the Science Faculty at the University.
- Recent efforts to adopt a "*Science for All*" philosophy with emphasis on outreach, sharing and efforts to redefine the image of the Scientist, under the slogan "*Embrace your Inner Nerd*" had been very successful.
- The enthusiastic reception accorded to a Cross-Faculty Science & Technology Festival involving business interests, the military, banks *etc.*, indicated that the society was willing and able to engage. The enrolment in the Faculty had also jumped to the highest number ever recorded.
- The push for commercialization of scientific output had established a positive environment for innovation in science.

- He emphasized that barriers to involvement in scientific activity had to be broken down and called for greater community involvement in data gathering and analysis, but urged that findings from community involved research must be fed back to the community and not disappear into inaccessible journal articles.
- The implementation of these ideas, however, was the major problem, although the prospects seemed encouraging given the apparently energetic zeitgeist (according to Dr. Coburn) lifting the regional public interest in community science.
- Dr. Depradine urged that the UNESCO driven and regionally defined Open Science approaches and policies must be shared with regional leaders and the population in general, but the tendency to adopt enlightened policies which are never implemented, must be avoided.

All speakers kept reasonably within their time allotment.

Comments from Participants

Dr. Angela Alleyne (Barbados) pressed for:

- Training our scientists and media personnel to write science articles in broadly intelligible ways, and for the development of standards to guide this.
- Finding novel ways of commercializing science.
- Urgent revision of our approach to a broken patenting system; and noted that
- The pandemic had engendered popular interest in science and had revealed a capacity of the populace to understand and discourse on quite complex scientific concepts, suggesting that the environment was ripe for engagement in community science.

Marcia Creary (Jamaica) spoke of:

- The need to promote more accessible scientific writing
- The difficulty faced by scientists beyond the mainstream institutions to get articles published in established journals.
- The need for well-directed, sustainable efforts to be put in place to foster the development of Science in the region.

Sandra Richards (Trinidad & Tobago) spoke of:

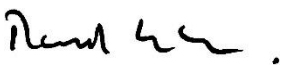
- The feeling of alienation that researchers outside of the mainstream felt – as if they really did not belong as a part of the scientific enterprise, but were simply imposters pretending to be engaged.
- The need to foster local scientific journals which could build acceptance of research of societal significance rather than relying on 'impact factors' of remote journals to measure value.
- She also highlighted the need to improve scientific writing.

GENERAL DISCUSSION POINTS

- The patenting process is often abused *e.g.* in the software industry, and needs revision – but how? To what? And by whom?
- Open Source software systems (*e.g.* R Biostatistics; Linux) have been proving to be quite successful and should be supported *vs* the often exploitative, proprietary software packages.

- New approaches to publishing need to be explored *e.g.* development of University Libraries as Open Publishing houses, but mechanisms for covering costs would have to be found *e.g.* payment for peripheral services, offprints, *etc.*
- As Science in general and publications in particular open up, maintaining Quality Assurance will be a major issue – distinguishing reliably between high quality, valid research findings and unreliable, weakly supported claims. Mechanisms and criteria will be needed.
- The pandemic provides a good illustration of the contending between genuinely useful and grossly misleading information in open discourse on scientific issues.
- In fostering community involvement in scientific research, two-way communication is important. The tendency of Academia to look down on community collaborators must be avoided. The ability of scientific researchers to communicate their work across disciplines or even within their broad disciplines needs to improve. The development of more specialists in science communication may be essential.
- The rise of the Entrepreneurial University requires a re-examination of the apparent dichotomy between open publication and commercialization. Both are necessary. Dangers to be avoided include the concealment of useful information to maximize profits and the dominance of commercialization efforts by large corporations.
- Sustainable Open Science journals do exist *e.g.* the 12 year old *Journal of Community Engagement & Scholarship* which is double-blind peer-reviewed, with a wholly voluntary Editorial Board and support via a University Library (U. Arizona). Articles are solicited from diverse sources including community and students.
- High impact does not necessarily track with publication in a high impact factor journal. Community impact is measurable and is becoming an increasingly important requirement for academic advancement.
- High impact factor journals with high page charges will almost certainly decline as Open Science journals appear and are successful.

The proceedings were brought to a close at 13:59 EST.



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