

## **A Global Conversation: Reflections from the First World Congress on Undergraduate Research**

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### **Abstract**

The authors reflect on the outcomes of the first World Congress on Undergraduate Research, held at Qatar University in Doha, Qatar, on November 13–15, 2016.

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The inaugural World Congress on Undergraduate Research was held at Qatar University in Doha, Qatar, on November 13–15, 2016. This was the first opportunity for the Council on Undergraduate Research (CUR), the Australasian Conference of Undergraduate Research (ACUR), and the British Conference of Undergraduate Research (BCUR) to cosponsor an event in partnership with Qatar University. The congress was an important step in advancing the internationalization of undergraduate research, scholarship, and creative activity (URSCA). More than 200 participants from higher education institutions in Australia, the Americas, Europe, the Gulf region, and the Middle East participated in the event and joined the larger international conversation and collaboration around URSCA.

In the following, participants share their experiences and reflections on the event.

### **The Staging of the First World Congress on Undergraduate Research: From Conception to Reality (Maher Khelifa, Qatar University)**

My personal connection with undergraduate research goes back to my undergraduate days, where I was exposed

to research methods and statistics, and was required to complete a graduation research project by the end of my fourth year. Following graduation, feeling empowered by this experience, I applied to graduate school. My personal experience was key in consolidating my belief in the added value of undergraduate research, in the ability of undergraduate researchers to conduct meaningful research, and in the role played by undergraduate research in motivating students to pursue graduate studies.

When I started teaching, I immersed my undergraduate students in scientific research. The quality and significance of my students' research compelled me to find a showcase for their work. Therefore, in 2001, I staged the first Undergraduate Students Research Symposium at Zayed University in Dubai. The success of this symposium led to the dream of staging an international conference for undergraduate researchers.

This dream was realized during the April 2014 National Conference on Undergraduate Research (NCUR) in Lexington, Kentucky. The proposal of an international conference on undergraduate research was discussed with Elizabeth L. Ambos (executive officer, CUR), Julio Rivera (then CUR president), and Stuart Hampton-Reeves (BCUR president; see Figure 1). This was followed by a range of video meetings that included individuals such as Angela Brew (ACUR).

The early meetings centered on issues of conference feasibility, viability, aims, and scope. Deciding to stage a congress rather than a typical conference was a defining moment of the discussions. Bringing together faculty mentors, students, and staff with a focus on building lasting international

**FIGURE 1. Members of the Planning Committee for the First World Congress on Undergraduate Research**



From left: Elizabeth L. Ambos (CUR executive officer), Julio Rivera (Carthage College), Stuart Hampton-Reeves (BCUR president), and Maher Khelifa (Qatar University).

collaboration was identified as a major goal of the event. Qatar University took the lead in local arrangements, performing the myriad tasks required to host participants and providing the venue, staffing, and logistical and technical support needed for a successful congress.

CUR advertised the event to its U.S. network and facilitated participant submissions by linking its conference submissions platform to the congress website so that abstracts in both English and Arabic could be submitted, and reviewers could receive abstracts. CUR suggested panelists and moderators for the discussions at the congress and contributed to the post-event survey of participants.

BCUR played a major role in disseminating information about the congress and liaising between the host and the European institutions. BCUR constructed and drafted the themes for the Congress, secured abstract reviewers, developed the Congress schedule, and helped with Congress material, acting on behalf of all BCUR and European delegates during the congress. ACUR's role was consultative in nature, participating in decision-making and assisting with the dissemination of information about the congress throughout Australia.

The first World Congress hosted approximately 200 participants, including students and faculty representing 56 institutions, 11 countries, and 4 continents. The event allowed students and faculty to discuss topics related to the major themes of the congress: climate change, environment and sustainability, global health, the global and the local, information and technology, war and peace in the twenty-first century, and the world we live in and the world we make. Feedback indicated that participants enjoyed the congress and its cultural experience, especially meeting students

from other parts of the world, forming new friendships, and creating research networks and collaboration opportunities. The event was an excellent opportunity for Qatar University students to meet student researchers from other countries, to discuss their own research, to share their culture, and to address misconceptions that might be held about the region. As suggested by the literature on undergraduate research and student conference participation (Garde-Hansen and Calvert 2007; Hathaway, Nagda, and Gregerman 2002; Hersh, Hiro, and Asarnow 2011; Hill and Walkington, 2016; Hunter, Laursen, and Seymour 2007; Mabrouk 2009; Kneale et al., 2016; Spronken-Smith et al., 2013; Walkington, Hill, and Kneale 2017), the student feedback and reflections from conference surveys reflect similar positive outcomes for student participants. Students reported that their congress participation allowed them to connect with others, increase their self-confidence, heighten their ability to take risks, and connect with people from other countries.

The congress offered a unique forum for representatives of undergraduate research organizations from four continents to meet and share best practices. They discussed the creation of an international body, the World Congress of Undergraduate Research Councils, that would oversee, regulate, and promote undergraduate research around the world.

The Doha Declaration (see Figure 2) and the creation of the World Congress of Undergraduate Research Councils are historic and significant milestones for the future development and progress of the global undergraduate research movement. The momentum generated by this Congress underlies the Second World Congress on Undergraduate Research that will take place on May 23–25, 2019 at Carl von Ossietzky University of Oldenburg, Germany, which

has opened its abstract submission portal and is working on the event's organizational details.

### **Friendships with People of Different Backgrounds (Bushra Abu Hamdah, Qatar University)**

As a student at Qatar University, I was the head of the committee of volunteers for the conference. We started recruiting volunteers two months prior to the start of the conference. Working with the volunteers presented many challenges, from coordinating schedules and dealing with people of different backgrounds to learning to listen to criticism as well as helpful suggestions. Working with this committee taught me how to solve problems, make decisions, and become more responsible, leading to friendships with people from different backgrounds. In spite of the hard work and tough times, the positive comments about my work made me happy.

The research I presented was on culture and emotion. I worked on the project the previous year studying the emotions of Arabs and non-Arabs. This was the first time I presented research at an academic conference with professors and students from different universities. The discussion of my research was very interesting because it touched on the culture and the religious side of everyone. Since the attendees' backgrounds varied, they discussed their emotions and what they would do in different situations from their perspective. At the end, I received very encouraging and strong comments about my research and was touched by the attendees' admiration.

Getting to meet people from different cultures is a very common thing to happen in Qatar, but making friends who come from non-Arab backgrounds is rare. At the congress, I made new friendships, got to know new people, and had the opportunity to see their achievements. I won't forget the professors who came to the conference who are special in their field and love their students and their jobs, yet are very humble and modest. I am still in touch with some students and professors whom I met at the conference. It was an unforgettable experience and one that has changed me personally for the better.

### **An International Journey (Aisha Mohammed Al-Hamadi, Qatar University)**

The World Congress on Undergraduate Research was an international journey and a great opportunity for each undergraduate participant, and I was delighted to be part of it. Presenting my research at the first World Congress was a big honor for me. After being accepted to present, I worked harder on my presentation so it would match the level at the congress.

There was frequent student and faculty interaction during the three days of the congress, and the collaborations were rich with knowledge and learning opportunities. Those

living in Qatar interact with different cultures every day, but what made this different is that it was with students from all around the world. The interaction was cultural, and there was an interaction between different disciplines. From my perspective, the interaction between disciplines was most powerful and had a strong impact on me, because it brought to light how students from different disciplines have various points of view on one subject. The questions that were asked after each presentation were especially interesting, because they allowed for discussion and exchange of ideas. The poster sessions were a great time to learn about new research, and they gave students the time to exchange their ideas and thoughts, ask questions, and have deeper discussions.

Participating in the congress was a great learning experience. It was the first time for me to present research at a conference. The experience boosted my self-confidence and my ability to deal with tension, and increased my presentation skills as well as my interest in doing research in the future. Although I knew the congress would be a great experience, I did not imagine that I would be recognized for my research and win the prize for best Arabic presentation. There were many other amazing researchers, but when they announced my name, I was really delighted. It encouraged me to take more opportunities and to always believe in myself.

### **The World Around Us (Emma S. Zdgiebloski, Drexel University)**

Of all the places in the world I wanted to visit, I had never really considered the Gulf region. If someone had asked me to point out Qatar on a map, I would not have had the slightest clue where to start. The journey began with an email from CUR. I had participated in the 2016 NCUR, which was held in Asheville, NC, so I was familiar with CUR's work encouraging undergraduate research in the United States.

Since coming to Drexel University, I have remained committed and engaged in research. As an undergraduate research fellow in the Lebow College of Business, I worked on my own faculty-guided research, and I assisted with other faculty projects within my college. When I received the email about presenting at the World Congress on Undergraduate Research in Doha, I had already presented my research at two conferences. Eager to do it again, I applied to the WCUR and, with the help of Suzanne Rocheleau in Drexel's Office of Undergraduate Research, the trip to Qatar was arranged.

For the months prior to my trip, I Googled Qatar tirelessly. I was shocked by the impossibly tall buildings and the rich cultural history of the area. I was not sure what I expected when I boarded the plane to Qatar, but I was excited to present again and experience a new culture and geography.

The first excursion offered by WCUR was a trip to the Museum of Islamic Art. I later learned the museum was designed by I. M. Pei, who coincidentally also designed one of Drexel's buildings. I had never seen such a focused collection of Islamic art and artifacts. When we left the museum that night, the city around us had transformed. All lit up, Doha looked like a city straight out of the future—incidentally modern and impossibly vast.

Later that evening, I dined at the Diplomatic Club with the other presenters and the conference facilitators. I remember meeting so many people from the United States and Qatar, and was impressed by how friendly and welcoming everyone was. The women from Qatar University asked a lot of questions about our lives in the United States, and we in turn asked them about their lives in Qatar. We later took our shoes off to walk along the beach as the lights from The Pearl, a densely populated island in Doha, shone on the water.

I met so many amazing women at the World Congress from all over the world. We traveled around in a group, making sure to support everyone's presentations. I think my favorite memory from the daytime portion of the congress was a presentation by Tanaz Dhondy, who had traveled from Australia. She was an engineer, and her presentation was on concrete reinforcements. I had never had much of an interest in concrete or its reinforcements, but Tanaz's presentation was so well done and so interesting that I found myself following along and collecting questions to ask at the end. I think that's what undergraduate research does—it generates interest and engagement that isn't necessarily limited by university or discipline. Tanaz's enthusiasm for her research was infectious, and I walked out of her presentation knowing a whole lot more about concrete.

While in Qatar, I was, at times, overwhelmed with hospitality, and no two people were more hospitable than two other WCUR attendees: Rana Al-Disi and Mariam Yasser Nofal. Both were accomplished biomedical researchers and won the best poster award for their work. But aside from their academic achievements, I was astounded by how friendly and engaged the two women were. When we went to the Souq Waqif (a large standing market in Doha), Rana and Mariam made sure we visited all the "good" shops and taught us how to negotiate prices. Toward the end of the night, they found a place that sold *kunafa* and made sure we all got to try the sugary cheese pastry. Rana and Mariam took us on tours of the campus and brought us to a full-moon party held by the Astronomy Club.

When it was time to present my own work, I was happily surprised by the level of engagement of those who came to see my poster. I was asked many questions and given several good ideas for how to continue my work. I have since

used the critiques and suggestions to make my research better and more well-rounded.

I was sad when it was time to leave Qatar. My experience at both the congress and the cultural activities surrounding it was unlike anything I have ever experienced, and I sincerely hope that the next congress will give other students the opportunity to obtain a deeper understanding of their work, the work of their peers, and the world around them.

### **Learning from Each Other (Julio Rivera, Carthage College)**

When several of us imagined the World Congress in early 2014, we had some grand visions and ideas for bringing students and faculty together for a "special international meeting," a "Congress." As time moved on and reality set in, our focus had to shift to the concrete aspects of building a meeting. Our visions took a back seat to promoting the congress, counting the registration numbers, and testing the website logistics. Happily, that all changed upon our arrival in Doha and Qatar University; suddenly many of our early visions became real along with new possibilities for the future of URSCA in an international context.

One of the gathering's most significant outcomes was the Doha Declaration, issued at the conclusion of the Congress (see Figure 2). Here CUR, BCUR, ACUR, and Qatar University affirmed URSCA across all disciplines and supported the internationalization of URSCA. This statement immediately became the touchstone for the 2019 Congress at the University of Oldenburg in Germany. Planning this next congress will lead to stronger communication and collaboration among its partners.

Whenever I travel, I enjoy the people I meet and the places I explore. However, I experienced a deeper enjoyment in Doha as I watched the cultural exchange between students from different countries and different cultures. This exchange happened almost immediately and continued throughout the congress, first focusing on student work and then expanding to students' sharing the ordinary aspects of their lives. The atmosphere had a special intensity as faculty and students from vastly different cultures listened and learned from each other. There was a deeper outreach among participants, possibly due to the setting as well as a structure that allowed significant amounts of time for casual interactions and discussions outside of the paper and poster sessions. For a while, I thought this perception was just mine alone, but it was common among the authors herein as well as so many other participants with whom I have talked since the congress.

I think that this congress is one of the most important things that the community has done to advance the international URSCA movement. Qatar University was an outstanding

**FIGURE 2. The Doha Declaration on World Undergraduate Research (2016)**

“On the historic occasion of the first World Congress on Undergraduate Research, we declare that the pursuit of knowledge knows no boundaries and that global challenges and opportunities require nations to work together in peace and co-operation. We jointly affirm the pedagogic value of learning through research, and we unite in our celebration of the amazing achievements of undergraduates across the world.

“We declare that we will work together to build a world-wide federation of undergraduate research councils and that through this partnership we wish to foster and support the development of more interconnected regional (including national) organizations devoted to undergraduate research.

“We declare that all disciplines are united in their pursuit of knowledge and we affirm the power of scientists, technologists, engineers, and mathematicians working with artists, humanities scholars, and social scientists to further our understanding of the world around us.

“We declare our intention to establish the World Congress of Undergraduate Research Councils to nurture and help coordinate the internationalization of undergraduate research, to facilitate the creation of new undergraduate research bodies, and to host periodic World Congresses around the world.”

Signed:

The Australian Conference of Undergraduate Research  
The British Conference of Undergraduate Research  
The Council on Undergraduate Research  
Qatar University

host, and the location was part of what made the congress unique and successful. I encourage readers to talk to students and faculty who attended the congress to learn their perspective and hear about their experiences. The congress was successful beyond expectations, and it opens new undergraduate research opportunities in the coming years. I look forward to the next congress in May 2019 at Carl von Ossietzky University of Oldenburg in Oldenburg, Germany.

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