Transforming COVID into a Learning Opportunity for Your Students

Spending a little of your class time educating students about COVID-19 might help them to deal with the challenges of the pandemic. The COVID outbreak is disrupting teaching and learning in many ways, and such disruption can provide incredible learning opportunities.

Instructors can make a huge difference: Universities reach almost 20 million post-secondary students in the United States and 1.5 million postsecondary students in Canada. By exploring the outbreak in the context of your discipline, you can encourage your students to think critically, to act responsibly, and to share what they learn with their communities -- potentially influencing those communities and encouraging healthy behaviors to help all of us.

Why Should I Discuss COVID-19 in My Class?

Over the next few weeks, students will be preoccupied with coronavirus, worried about their families and friends at home and overseas. As people they know become ill, students will have difficulty focusing on learning. Making your course content relevant to them can help. Students expressed high levels of frustration after 9/11 and other major world events when faculty avoided discussing current events in class. So consider asking your students to apply the concepts they learn in your course to the situation that is evolving around them.

What Are the Advantages for Instructors?

- **Students learn better when they engage the concerns at the top of their minds.** Rather than have them avoid talking about COVID-19, they can engage their curiosity and concern in positive ways.
- **The data and the resources about COVID-19 are online.** Your students have access to them from anywhere. More and more scientific data emerges daily. State governors, mayors, and key government officials offer briefings and updates daily.
- **Students can participate in their own learning.** They might help you to generate the questions. Ask them what they would like to know. If they don’t generate the best questions, help them to ask better ones. Then structure the information search process, provide guidance for reporting out data in ways that are clear to their audiences, and encourage students to engage in conversation with each other.
- **Great opportunity for global learning:** Our students are a diverse, multilingual community. They have access to news sources, publications and data in over 100 languages on all continents around the world.

What Are the Advantages for Students?

- **Students learn better when they engage the concerns at the top of their minds.** Rather than have them avoid talking about COVID-19, they can engage their curiosity and concern in positive ways.
- **Students gain a sense of agency.** Rather than have students simply responding to stimuli such as shelter-in-place orders, they can take action as a way to respond questions and concerns. Seeking and using knowledge is one way to take action. They can then use their knowledge to inform their decisions.

Questions and Learning Activities

**Any Discipline**

- How can research/professional practice in our discipline help us better understand the COVID-19 outbreak and individual/societal/global responses to it?
- How can research in our discipline help us inform the response to the COVID-19 outbreak?
- How can we as individuals/as members of the Orange community contribute meaningfully to the health of our communities?
- What can you as an individual do to help flatten the curve and reduce the impact of the pandemic?
- What is the story that you tell yourself about this pandemic?

**Public Health, Statistics, Biological Sciences, Biochemistry, Medicine**

**Simulation of Coronavirus Spread**

(1) Researchers at the University of Toronto (David Fishman and Asleigh Tuite) developed an online simulation using global infection data to show how early control measures can slow the spread of Coronavirus.

- [CBC description of the project](#)
- [Direct link to the simulation](#)

(2) *Washington Post* Simulation of Coronavirus Spread

How is the impact of the pandemic in the U.S. or Canada likely to differ from the impact in China or Italy?

- [Coronavirus: Three reasons why the UK might not look like Italy](#), BBC News.
- [Demographic science aids in understanding the spread and fatality rates of COVID-19](#), Authors: Jennifer Beam Dowd*, Valentina Rotondi, Liliana Andriano, David M. Brazel, Per Block, Xuejie Ding, Yan Liu, Melinda C. Mills* Leverhulme Centre for Demographic Science, University of Oxford & Nuffield College, UK.
How will this virus act after initial shelter-in-place restrictions seem to have worked?

- ‘We need to be alert’: Scientists fear second coronavirus wave as China’s lockdowns ease. Nature.com.

Coronavirus vs. other pandemics

- Analyze data provided by the WHO, CDC or regional health authorities: compare the Coronavirus outbreak with 10-year trends in flu outbreaks or other diseases

Tokyo Olympics

- Online Discussion in Teams: Students imagine that they are serving on the national committee of a country planning to send athletes to compete at the Tokyo 2020 Olympics. What questions would the committee need to consider? What data would be committee need to have in order to decide their team members? What do they tell athletes? The athletes’ families?
- What can the Olympics committee tell the press? Fans who have purchased tickets and made arrangements to attend? What happens if COVID-19 resurfaces next year?

Communication, Media Studies, Journalism, Public Policy, Information Studies

- Ask students to look up and compare news coverage of Coronavirus in different languages they speak, or in countries with which they are familiar
- Conduct a discourse analysis of news coverage in English from different continents (such as Al-Jazeera, Deutsche Welle, India Today, France24, Hong Kong Free Press)
- Librarians historically play an important role in society as locations where people can gather and where information is freely available. What role do libraries play during a pandemic such as COVID-19?
- Librarians often assert that “information wants to be free.” How does the wide availability of materials that had hitherto been behind firewalls work for or against such an assertion?
- As scientists and researchers share their work across borders in an effort to address the COVID-19 pandemic, they seem to be pushing through previously established barriers. Given this sharing of information and global cooperation, what might the “new normal” of information availability look like?

History

- Ask students to compare the 1918 Spanish Flu with the Coronavirus pandemic. A number of articles have been circulating in the media, such as:
- Ask students to explore the impact of pandemics on ancient civilizations
- Discuss the connection between pandemics and colonization

Literature

- Ask students to compare the introduction to Boccaccio’s Decameron to the current pandemic stories. What do they hear in the stories that people are telling then and now? How did Boccaccio’s introduction predict some responses to COVID-19? What similarities? Differences?
- Compare Giono’s The Horseman on the Roof to some contemporary stories circulating about COVID-19. What does this story suggest about human responses to pandemics?
- Some have suggest that COVID-19 is a plot to “thin” the population. What historical documents/stories would point in that direction? (Consider, “smallpox blankets” or the Tuskegee Experiment, for example.)
- People are comparing COVID-19 to multiple stories about pandemics. Novels such as The Stand (King) or Hunger Games (Collins) have told stories that people have linked to the COVID-19 pandemic. Why are people making these links (avoid the obvious)? What do stories that capture our imaginations tell us about humans and human behavior? Have students present evidence for their opinions.

Economics, Business

- Explore the global economic impact of the coronavirus outbreak
- Estimate the global cost of travel disruptions
- Compare how companies/banks/governments around the world are responding. What are the results of these varied responses?
- Conduct a simulation. Students imagine that they are the leaders of different size companies in different parts of the world. Ask them to explore and estimate the impact of the pandemic on their operations, supply chains, HR policies. Ask how they would “pandemic proof” a new company and protect the health of their employees.

Architecture

- Hospitals in particularly “hot spots” are overwhelmed by population needs. Architecturally, many hospitals are unprepared for this level of need. As a result, we hear stories about people being treated in hallways, inadequate quarantine areas for healthcare workers, and hospitals storing bodies in churches or refrigerator trucks. What architectural changes might you imagine in a post-COVID-19 hospital building? How will these changes help? What immediate solutions might you suggest?
- Families are having to shelter-in-place, some in apartments or flats that don’t allow for much privacy for studying or working. What immediate solutions might you suggest? What architectural changes might you imagine in a post-COVID-19 residential building to address the possibility of repeated outbreaks?

Philosophy and Ethics

- Discussion of individual freedom vs. imposed self-isolation for the good of the community
• Comparing the approach different countries have taken to limit the spread of the pandemic (ask students to find resources and post online)
• Ethical issues involved in limiting the movement of individuals
• Ethical dilemmas involved when there isn’t sufficient capacity in hospitals to treat all patients
• Ethical issues involved when hospitals run out of equipment to protect their medical staff
• Ethical issues in research during global health emergencies
• How do you see the principles of civic society in action during a pandemic?

Sociology and Social Work

• What types of equity/diversity/inclusion issues do you see arise in the response to COVID-19?
• If you were the major of a city, head of a company or university, what considerations would you have to take into account to make sure that members of your community have equitable access to health care and other supports during a pandemic?

Political Science/International Studies

• Ask students to explore impact of COVID-19 on elections (US, France local elections; Paris mayoral election)
• Compare the policy responses to COVID-19 in different countries, ask students to compare the statements/rhetoric of different heads of state.
• Conduct an online simulation: Ask students to imagine that they are joining a cabinet meeting in a country that is considering its possible responses to COVID-19 and need to decide what measures to implement, and what the impact might be. (Such as restricting travel, closing borders, sharing stock of medical equipment with neighboring countries, closing schools) Choose a country that has not announced a clear response, one where the response has been gradual, students might even choose a state in a different part of the country from their own. Just ensure that that students can research the local response.

Arts

• How have artists responded to previous epidemics/pandemics? How might these responses suggest ways that artists could respond to COVID-19? What innovations might we see?
• Many artists are turning to their artistic mediums as ways to support broad global communities during COVID-19 (e.g. Patrick Stewart; Yo-Yo Ma; virtual choirs; actors and writers reading books aloud). Moreover, many artists are choosing to return to works that emerged during periods of tremendous world change. Why those works? Why is the work of art important now? Why will this work be important in a post-COVID-19 world?
• Eric Whitacre imagined a virtual choir in 2013. How do virtual choirs during COVID-19 build on his work? How does the imagination required for art prepare communities, perhaps the world, for future developments?
• How might a sculptor, painter, ceramicist, jeweler, or textile artist imagine a response to COVID-19?
• Consider historical artistic responses to the Black Death. What do these response suggest about ways that artists respond to epidemics? Pandemics?

Education

• COVID-19 has demanded educational change: many K-12 teachers find themselves teaching online as do many college and university professors. What does making these changes require? How might these changes impact the future of education?
• Many parents now find themselves teaching at home. How is their work different from the work of parents who are home-schooling? Why (avoid the obvious)?
• COVID-19 appears at a particular time in higher education when the demographics of students who might participate in higher education is rapidly changing. How might COVID-19 affect decisions that leaders in higher education make? How might it affect decisions that students make?

Engineering and Computer Science

• Algorithms are somewhat tricky in their encoded biases. How might COVID-19 highlight or hide such encoded biases?
• Various kinds of engineers are being asked to begin producing personal protective equipment (in the US) for healthcare workers, and companies that rely on the combination of machines and people to produce parts, equipment, and products are being asked to produce the kinds of equipment that hospitals responding to COVID-19 find helpful. What kinds of impacts might this type of request have on research? On research for future pandemics? What research areas does this type of request suggest?
• COVID-19 seems to spread through droplets-contact and through the air. How might engineers use their expertise to address this pandemic and similar ones? How might they work across disciplines to address the challenge presented by this and potentially other pandemics?

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