

Diaries During and After the Lockdown Communicating COVID-19 Dynamics to the Public: Experiments with Social Media

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Project Synopsis: In April of 2020 we began a project designed to communicate insights from a system dynamics model of the COVID-19 project to a non-modeling audience. We began with a simulation model, CORONA1, built by Ali Mashayekhi and calibrated to Iran. We wrote and published 20 stories in a blog-like format under the title of “Diaries During Lockdown”. Another 6 were published as “Diaries After the Lockdown”. The current model exists as 11 modules that develop insights about the pandemic in a step-by-step process. We have experimented with several social media platforms and are currently engaged in an effort to transform the project into curriculum aimed at system dynamics students.

Focus of This Paper at the ISDC (3 of 4): We have prepared two applications papers and two work-in-progress papers to present this work at the 2021 ISDC. The four paper foci are (1) A Description of our overall story telling approach, (2) A presentation of the technical details of the 11 modules in our current model (this paper), (3) *A report on several experiments with social media and online presentations (this paper)*, and (4) A proposal to develop curriculum aimed at students of system dynamics.

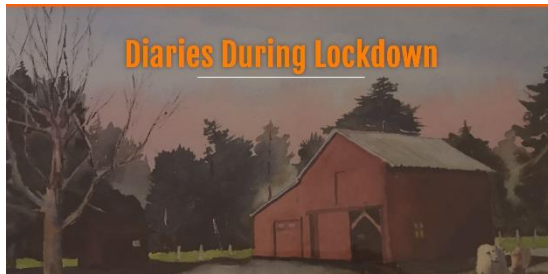


Figure 1: Logo of the Diaries During Lockdown Project

This project started out in an emergent mode. We were finding our way forward, seeking to learn how to balance writing interesting Diary Entries while at the same time paying close attention to lessons to be learned from the CORONA1 model. We share our work with colleagues and friends. We made a number of online presentations to groups interested in system dynamics modeling. We engaged in a bit of our own informal word-of-mouth activities to “spread the word” about our project. But we did not (and perhaps still do not) have a formal and elaborated strategy for “getting more eyeballs” on our work.

This work-in-progress paper details some of the efforts we have made to create an attractive and informative web interface for our work as well as preliminary attempts to define better ways to use social media to get out the word about our project. We believe that these preliminary efforts should be of some interest to the system dynamics community at large because the general issue of communicating dynamic insights that

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emerge from a system dynamics modeling project to the public-at-large is an important problem for many modeling projects in our field.

First, we need to elaborate why reaching out to the public must be a concern for all scientists including those who choose to use models for their analysis. The only successful case where the global action could eradicate a disease with such scale goes back to 1970's for smallpox. However, there are multiple issues with the COVID-19 pandemic that prevents us from getting a complete eradication. First, it re-emerge again through the contacts between humans and animals carrying the virus. Second, unlike smallpox virus carriers, Corona virus carriers can be asymptomatic. It means that it would be much harder to trace it in the society and stop the spread. Finally, unlike the case for the smallpox, there is no global effort to eradicate the virus truly. Even if policies such as lockdown and vaccination help some countries to slow down the breakout, the virus will have enough time and hosts to mutate in other countries. Therefore, there will always be a stronger variant of the virus that would not respond to the current vaccines.

It seems that we cannot solely rely on top-down strategies delivered by governments. However, if all global citizens act responsively, an all out bottom-up strategy can work. While it would be difficult to imagine that health care services will be able to curfew between the carriers and the susceptible population, it can be done if individuals have familiarity with the most recent findings by scientists. However, reaching out to the general public is something that most of scientists are not trained for. On one hand, we live in the age of information where an idea can spread faster and broader than ever. On the other hand, it would need certain training to achieve broad publicity. Another issue comes with the difference between the language scientists and public use. Most scientists are well accustomed with scientific more complex way of asserting their insights and findings. So, ideas should be stated in a more understandable way. One of the stories in Diaries during Lockdown, "[*Thinking Globally, Acting Locally*](#)", touches this issue.

In our project, we have already tried multiple ways, in addition to the common information sharing in the academia, to present the insights from the modeling effort to explain the mechanism behind the pandemic. Our website contains stories that each reflects on one aspect of the pandemic. Sometimes the story are accompanied with protocols and instructions for everyday activities such as [how to promote hospitality](#), or [how to create a social bubble](#), or [how to make sense of data](#), and so on. In addition, our team have been successful to find multiple venues to present to students and other academicians. We have not yet fully used the capacity that lies in the social media. So far, a number of videos have been uploaded on our [youtube channel](#), and one video has been posted on Instagram and Facebook. While creating the right content with the right format needs lots of expertise and attention, our team is determined to follow that path. This effort can be more fruitful with the help of more people with the same concerns.