

Diaries During and After the Lockdown Project

A Story-Telling Approach for Communicating COVID-19 Dynamics to the Public

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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 (1 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 (this paper)*, (2) A presentation of the technical details of the 11 modules in our current model, (3) A report on several experiments with social media and online presentations, and (4) A proposal to develop curriculum aimed at students of system dynamics.

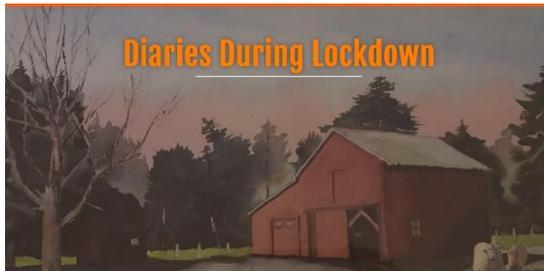


Figure 1: Logo of the Diaries During Lockdown Project

This project began on April 4, 2020 when Ali Mashayekhi called David Andersen to discuss how best to disseminate results from a system dynamics model of the COVID-19 pandemic that he had developed to brief public health officials in Iran. The next day, Palm Sunday, at a more broadly attended conference call most of our current team was assembled and we started to work. In the year since then, we have been working to convey insights from a system dynamics model of the pandemic to a general audience by writing Diary Entries in a blog-like form, refining and developing our model, and most recently developing a series of 11 modules that can be used

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as the basis for a curriculum aimed at students of system dynamics. This paper describes in general terms our work activities, our products, and our approach to dissemination of dynamic insights.

An Application Aimed at Communicating to the General Public

The core work of this paper is presented in the form of a PowerPoint show with 23 slides that we have used in the past to communicate the purpose and content of this application of system dynamics modeling to communicate with the future. Below, we describe very briefly what is contained in these slides.

SLIDES 2-9: Overview and Preliminaries. These preliminary slides introduce the project and the members of our team. They briefly sketch the origins of the project including our debt to Dana Meadows and Garrison Keillor as master communicators. Finally, these slides identify who on the team was responsible for each segment of the work.

SLIDES 10-14: How the Stories are Set Up. All our stories appear as “Diary Entries” from a semi-fictionalized location, New Fadum Farm. All the stories have been cast into a standard format when published on the Web (e.g., all have a trailer, seek to keep to 800 words, always draw out a lesson at the end, and always give online access to the CORONA1 model). These 5 slides briefly describe the conventions that we have used to structure all the stories.

SLIDES 15-18: Examples of Lessons within a Single Story. These 4 slides walk our readers quickly through three of our Diary Entries to give a flavor of the different types of lessons that we seek to impart within a single story.

SLIDES 19-24: Meta-Lessons. As the project emerged, we realized that these stories are about more than technical lessons. We kept coming back to the importance of mental models, the importance of being aware of how local action unfolds from a global system perspective, and the importance of keeping focused on data both to build and calibrate as well as to live safe lives during the pandemic. These slides sketch how we approached some of these larger ideas, culminating on some reflections on why adhering to protocol-driven behavior is so important during the pandemic.