



SYSTEM DYNAMICS LOOP GENERATOR

BY GILLIAN O'DONOVAN



I recently heard about a piece of software that I could use on my iPad to build causal loop diagrams. As a Mac user, this was of particular interest to me, as I've had a hard time finding adequate software for making CLDs. I downloaded the *System Dynamics Loop Generator* directly onto my iPad and found quite quickly that the app had everything I needed to depict what I felt was occurring in a certain situation via a causal loop diagram.

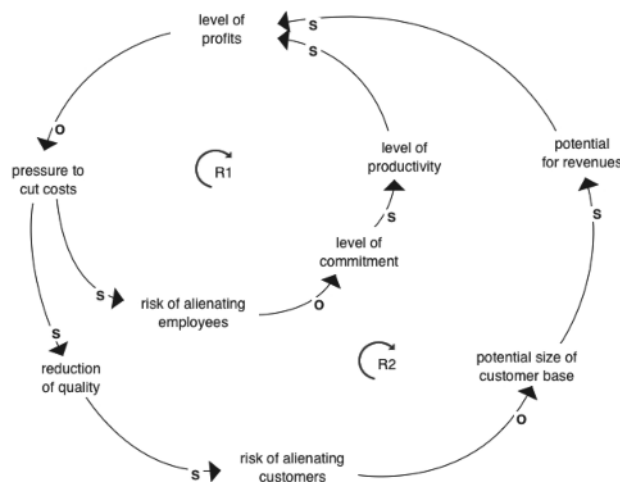
The app has two different modules. One module consists of systems archetypes that can be edited, and the other module lets me make my own bespoke CLDs. I found the archetype module to be straightforward and easy to use. Each archetype has a diagram along with easy explanations of the dynamics at play in that structure. By tapping on the "Edit" button, I could replace the generic text in the variable boxes with wording that represented what I was using the archetype to describe.

The bespoke CLD module is a bit more complex, but I found that within minutes, I was able to put together diagrams that represented some pretty intricate dynamics. In the bespoke module, I could insert text boxes, connect the boxes with connection arrows, and choose whether the relationship between two variables changed in the "Same" or "Opposite" direction. In addition, a button lets you insert loop identifiers, which help in identifying which loop is telling what story.

Probably the biggest learning curve I encountered was being able to make the arrows go where I wanted them to. Fortunately, the app developers put "handles" on each arrow, enabling me to manipulate the location of the arrow head, the arrow tail, and the relative shape of the arrow line itself. After about 10 minutes, I was able to create CLD structures that looked pretty good, making them far easier for a non-loop user to read than something scrawled on a piece of paper (see "Vicious Cycle of Cost-Cutting").

For me, this readability is important, as I plan to share several of my completed loops with the staff in my office, and I don't want to have to spend an hour getting them to understand CLDs. I firmly believe that it is much easier for people to understand a problem and solution through loops than for me to try to describe what is going wrong and how I propose we fix it.

VICIOUS CYCLE OF COST-CUTTING



If our cost-cutting efforts alienate our employees and our customers, we will find ourselves in a vicious downward spiral with limited options to get out. How can we manage our costs without alienating our own people and customers? What can we do to avoid falling into this trap?

The features of the System Dynamics Loop Generator app are user friendly. The ease with which I was able to construct loops that accurately reflect the existing dynamics at play in organizations makes this a great piece of software for me to add to my arsenal of communication aids. Finally, the app has a feature that allows me to send my completed archetypes or bespoke CLDs directly to anyone with an email address. Apparently you can also post completed loops directly to Facebook and Twitter, but I haven't tried that capability yet.

The System Dynamics Loop Generator app is only available for the iPad tablet right now. As an iPad user, I am happy that we finally have something we can use to capture the story of what is really going on in our organizations. ■

Gillian O'Donovan has been a senior manager with a multinational British airline for the past 25 years, responsible for ensuring that "Premier" passengers have a memorable travel experience. She lives in Barcelona, Spain.