**Project Overview:**

A tsunami of data has hit the life sciences, uprooting previous approaches to data education, while simultaneously reconfiguring how we do science. So how do we educate future life scientists in the realities of 21st century data-driven discovery?

Our research program is investigating the use of “story-driven” strategies to teach data science in academic settings. More specifically, we’ve developed a narrative-driven approach which extends the case-study method of instruction, enriching it with insights from cognitive psychology, beautifully illustrated with sequential art. The end-product is a DataStoryTM, as pictured in the figure below.



**Learning Platform Needs:**

While the content for each DataStory has been carefully developed with sequential artists and data science consultants, we are currently exploring platforms that will allow us to deliver our content most effectively. We seek a platform that allows us to seamlessly integrate our sequential art panels and narrative, while providing an interactive environment that enables students to complete the exercises in real-time and receive immediate feedback.

**Initial Pilot Learning Experience:**

Story Narrative: StatCat is out to prove the truths of an ancestral story that claims a mysterious chemical allows cats to live forever, however his old-fashioned approach to data science and statistical analysis causes DataDog to join the journey with a more modernized approach. The student works with StatCat and DataDog to analyze and interpret several datasets to determine if there is any evidence to support StatCat’s ancestral claims.

Approximate Length: 30 minutes

Learning Objectives:

1. Handling and importing datasets in R
2. Development of an analysis plan
3. Joining/Merging datasets in R
4. Visualize linear relationships in R
5. Hypothesis Testing – Correlation in R

Learning Material: Several short exercises integrated into the story at each learning objective, with an extended exercise towards the end of the story. Completion of this extended exercise is required to complete the story narrative.