Reflect on the Question

Reflect on the Question | Analyze the Data | Draw Conclusions

Lab 6: Worldwide Trends in Internet Usage

The World Bank is a data collection of information on all the world's countries. Data is collected by country, and include items such as total population, CO2 emissions, and the number of mobile device subscriptions. We will examine some of the trends in this dataset and interpret the parameters of the fitted models to best describe the change over time.

problem

2/3 points (graded)

Review of Exponential and Logistic Models

In this lab, you will use **exponential** and **logistic models** to answer a question of interest. Let's start by remembering how we approach a modeling problem.

1) When choosing between two models with very similar R^2 values, what **additional statistic** should you examine to help you select the best-fitting model?

- ◉ The sum of squares ✖
- ○ The residuals ✔
- ○ The value of r
- ○ the mean and standard deviation of the dependent variable

2) Which parameter represents the rapidity of **growth** (or change) in both the exponential and the logistic model?

- ○ a
- ○ t
- ○ C
- ◉ b ✔

3) Most biological data will follow a **logistic** growth model. Why?

- The logistic model does a better job at estimating the initial growth rate than the exponential model.
- The logistic model never decays; it only increases with time.
- The logistic model takes into account the fact that most growth does not continue indefinitely. ✔

Submit You have used 2 of 2 attempts

Answers are displayed within the problem

Lab Preparation

In this lab you will be working with data from the World Bank.

1. Open RStudio. Make sure you've installed the **current version** of the SDSFoundations package.
2. Type **`library(SDSFoundations)`** This will automatically load the data for the labs.
3.Type **`world <- WorldBankData`** This will assign the data to your Workspace.

Alternatively, you can follow the steps in the "Importing a Data Frame" R tutorial video, and use the WorldBankData.csv file. (Right-click and "Save

As.") Make sure to **name** the dataframe "world" when importing.

1. Open RStudio.
2. Click on "Import Dataset" button at the top of the workspace window. Choose *"from text file."*
3. Click on the location of the WorldBankData.csv file you just downloaded.
4. Click on the WorldBankData.csv file. Then, click Upload.

Feel free to use the script from the week's PreLab, which you can modify for use in this Lab.