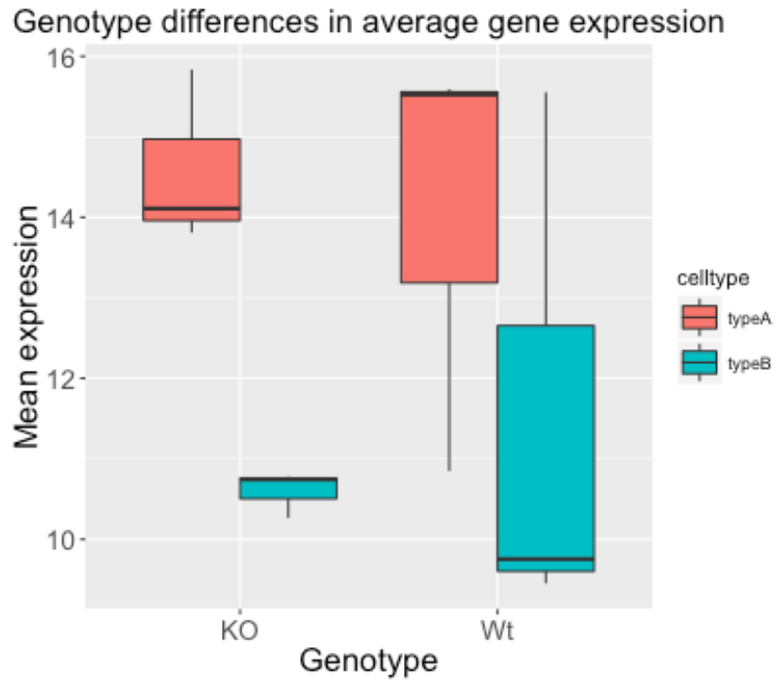


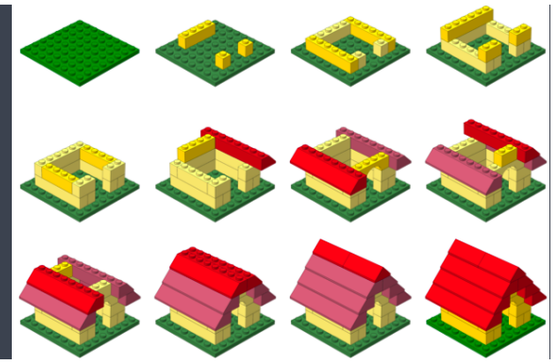
Introduction to R

Harvard Chan Bioinformatics Core

https://tinyurl.com/hbc-r-online

Sponsored by HSPH

Learning Objectives



- ✓ Comfortably use RStudio (a graphical interface for R)
- ✓ Fluently interact with R using RStudio
- ✓ Become familiar with R syntax
- ✓ Understand data structures in R
- ✓ Inspect and manipulate data structures
- ✓ Install packages and use functions in R
- ✓ Visualize data using *ggplot2*
- ✓ Utilize pipes, tibbles and functions from the Tidyverse package suite

Harvard Catalyst Online Resource

https://projects.iq.harvard.edu/hcatrresource

HARVARD UNIVERSITY HARVARD.EDU

Harvard Catalyst Introduction to R:
An online, hands-on training resource for learning the basics of R
Contact

HARVARD CATALYST
Harvard Clinical & Translational Science Center

HOME Lessons Faculty Supplemental Resources

Welcome to Introduction to R

This **online, hands-on learning resource** will introduce you to using R and RStudio. R is a simple programming environment that enables the effective handling of data, while providing excellent graphical support. RStudio is a tool that provides a user-friendly environment for working with R. This resource is intended to provide both basic R programming knowledge and information on utilizing R to increase efficiency in data analysis.

This comprehensive online learning resource was created in collaboration between Harvard Catalyst and the Harvard Chan Bioinformatics Core. It includes a series of videos explaining fundamental concepts in R and demonstrates the application through live coding. It is geared toward those interested in learning the basics of R for reproducible data wrangling and visualizations (ggplot2), and/or performing data analyses that require a basic knowledge of R.

Resource lessons address the following:

- **R syntax**: Understanding the different 'parts of speech' in R, and introducing variables and functions, demonstrating how functions work, and modifying arguments for specific use cases.
- **Data structures in R**: Explaining the classes of data structures and the types of data used by R.
- **Data inspection and wrangling**: Reading in data from files, and using indices and various functions to subset and create datasets (including the tidyverse suite of packages).
- **Visualizing data**: Visualizing data using plotting functions from the external package ggplot2.
- **Exporting data and graphics**: Generating new data tables and plots for use outside of the R

Exit survey

https://tinyurl.com/hbc-r-exit-survey

Interested in additional training?

All workshop materials available at:

https://hbctraining.github.io/main

Upcoming relevant courses from our partners at Countway Library:

1. Introduction to Data Management Plans (Mar 30th)
2. Writing a Data Management Plan (April 13th)
3. Introduction to Data Repositories (April 27th)
4. How and Where to Publish your Data (May 11th)

Office hours

- Office hours for trainees
- Every other Wednesday, 11am - noon
- 4 x 30 minute slots available

Get (stay) in touch with us!

Sign up for our mailing list:

https://tinyurl.com/hbc-training-mailing-list

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Consulting email: bioinformatics@hsph.harvard.edu

Twitter: @bioinfocore