CODE OCEAN

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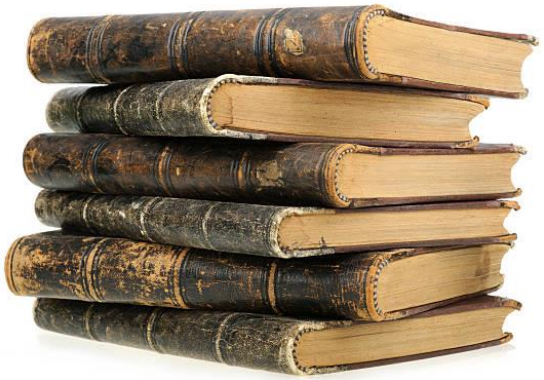
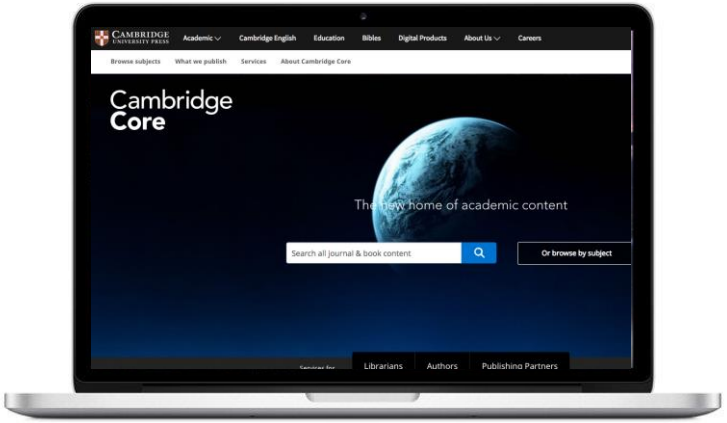
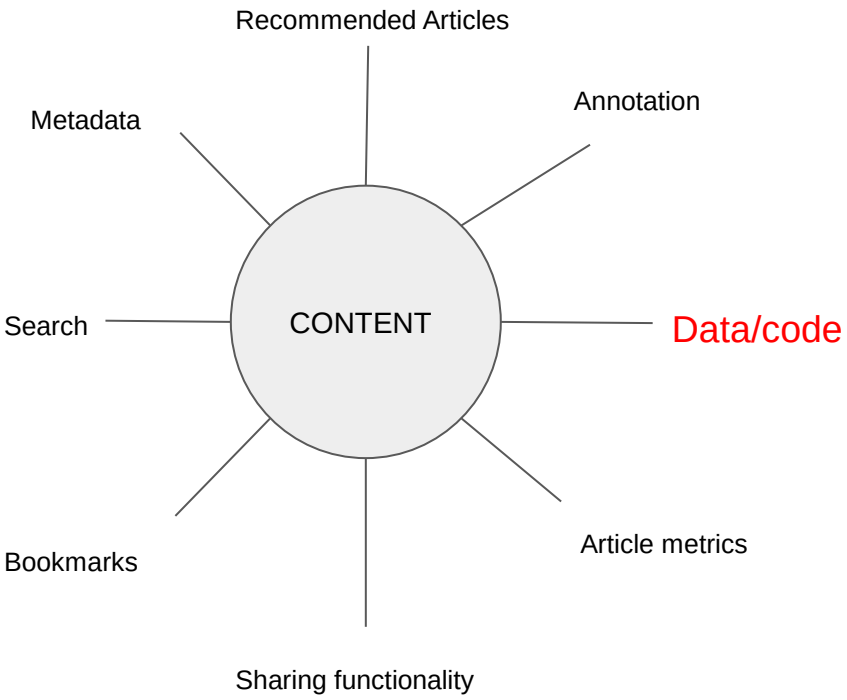
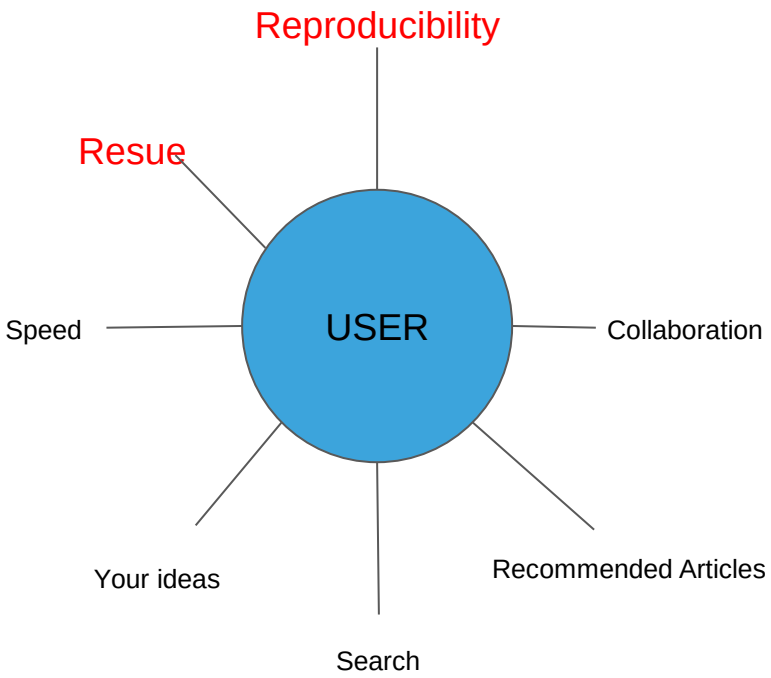
PRINT => DIGITAL => PLATFORM

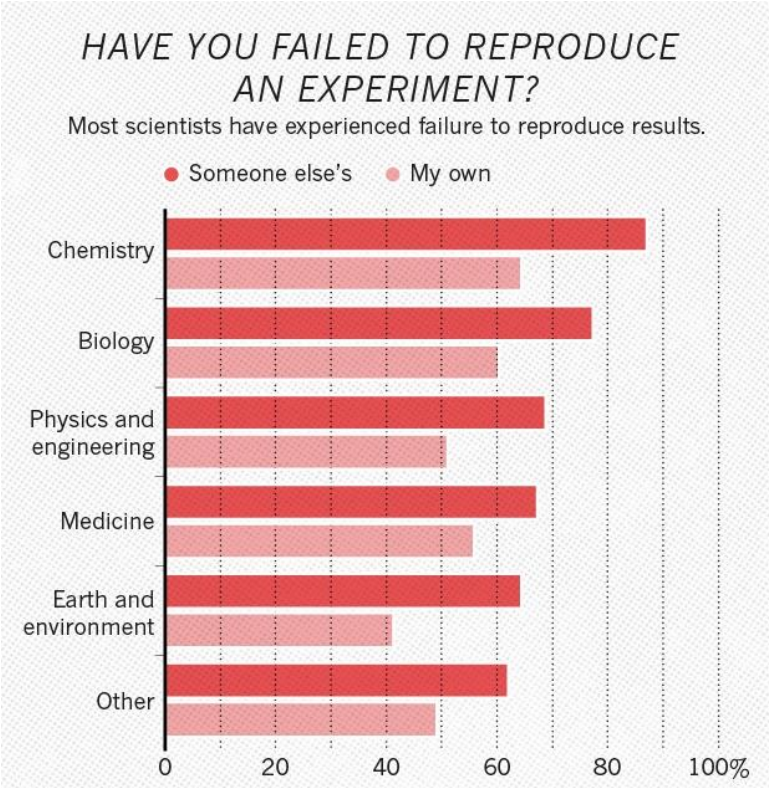


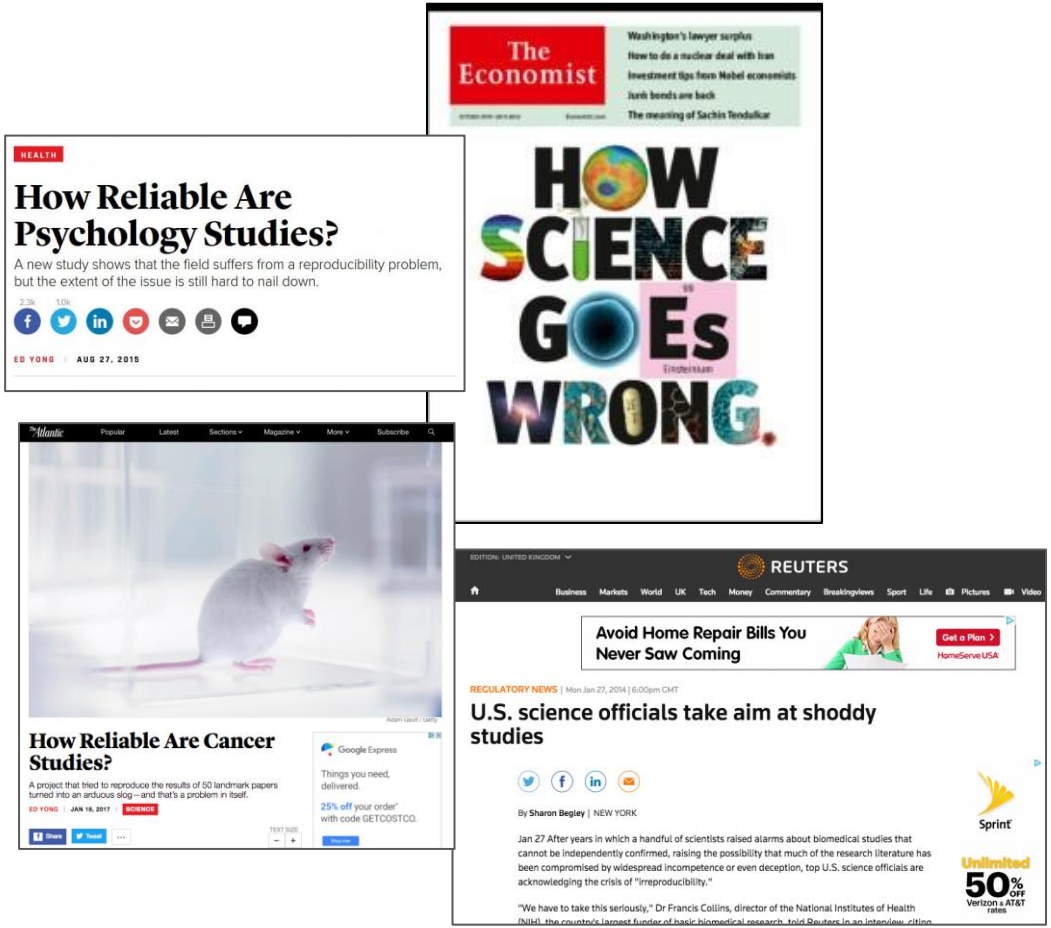


From content to user









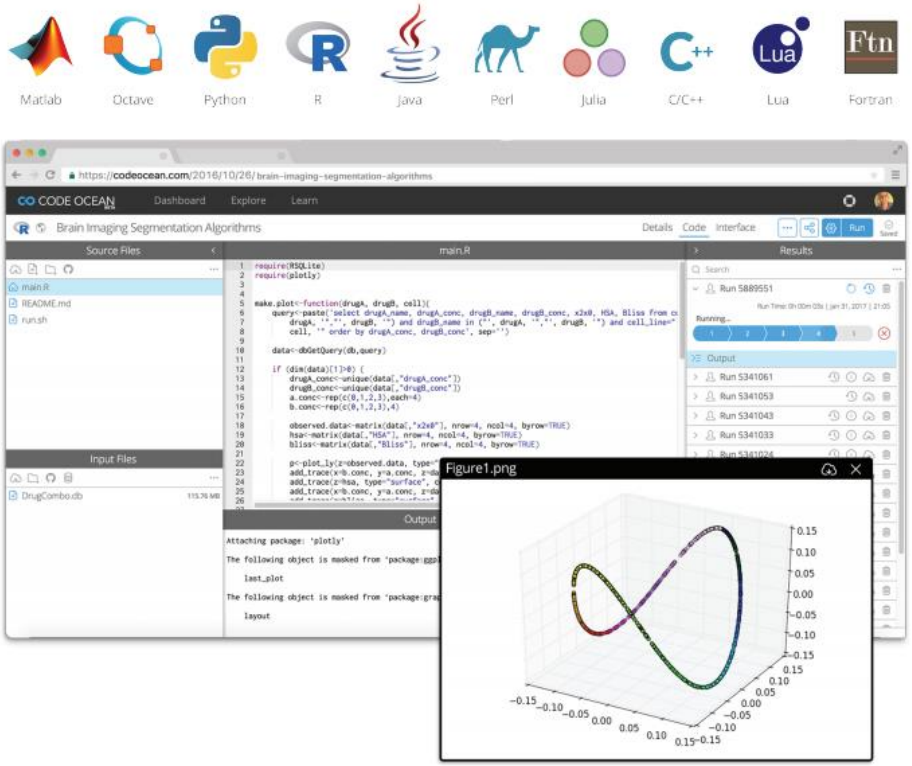
Nature **533,** 452–454 (26 May 2016) doi:10.1038/533452a

What is Code Ocean?

Code Ocean is a cloud-based executable research platform

It allows authors to upload their algorithms, and link them back to their articles.

The authors and other researchers can run the code, to test for reproducible results, and also execute the code with new input values.



Code Ocean | Discover & Run

Secure https://codeocean.com/2016/11/21/common-variable-learning-and-invariant-representation-learning-using-siamese-neural-networks

CODE OCEAN BETA Dashboard Explore Learn

Common Variable Learning and Invariant Representation Learning using Siamese Neural Networks

Details Code Interface Run Saved

Source Files

- Diffusion.py
- DummyDatasetGenerator.py
- Siamese_common.py
- Siamese_comonDemoRunner.py
- SiameseDataHandlerDemo.py
- SiameseFileIO.py
- Utils.py

Input Files

Siamese_comonDemoRunner.py

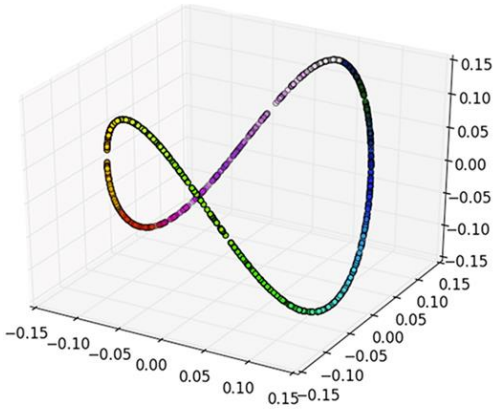
```
'''
Created on Sep 8, 2016

@author: urishaham
'''
import matplotlib
matplotlib.use('Agg')
import numpy as np
import matplotlib.pyplot as plt
import tensorflow as tf
import SiameseDataHandlerDemo as dh
import Siamese_common as Siamese
from mpl_toolkits.mplot3d import Axes3D
import sklearn.metrics as met
import Diffusion as df

##############################################################
#######################  generate data  #######################
##############################################################

dataset = 'dummy'

if dataset == 'dummy':
    S1_train, S2_train, y1_train, y2_train

# normalize data
S1_train, S1_test = dh.standard_scale(S1_t
S2_train, S2_test = dh.standard_scale(S2_t

# cut a subset for validation
n = S1_train.shape[0]
n_val = int(np.floor(0.1*n))

valSet_1 =  S1_train[:n_val]
valSet_2 =  S2_train[:n_val]

X_val_1, X_val_2, valTargets = dh.get_rand

S1_train = S1_train[n_val:]
S2_train = S2_train[n_val:]
if dataset == 'dummy':
```

Results

Search

Published Result

diffusion embedding of sensor Number 1 code.png .png



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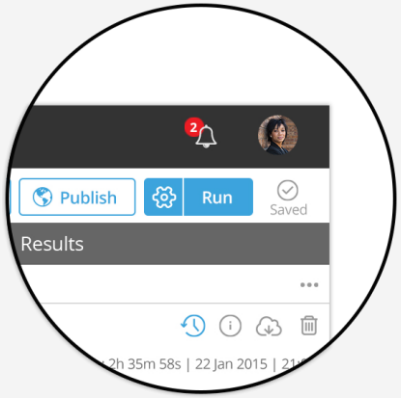
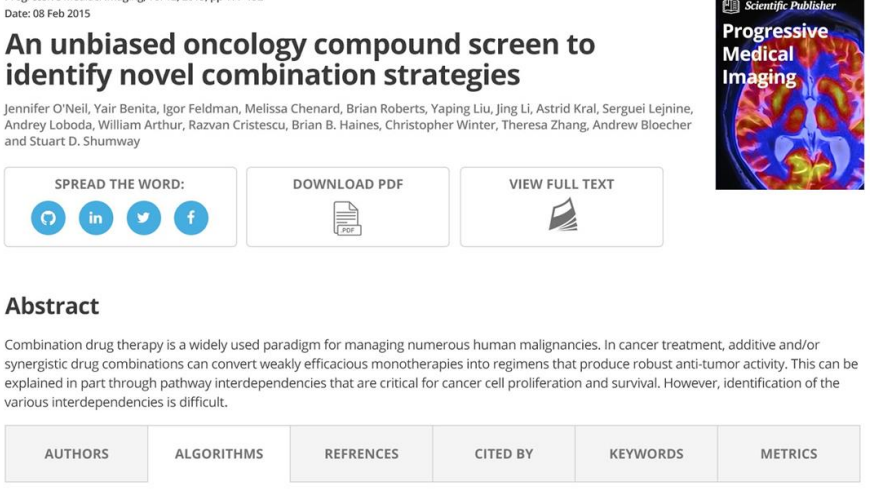
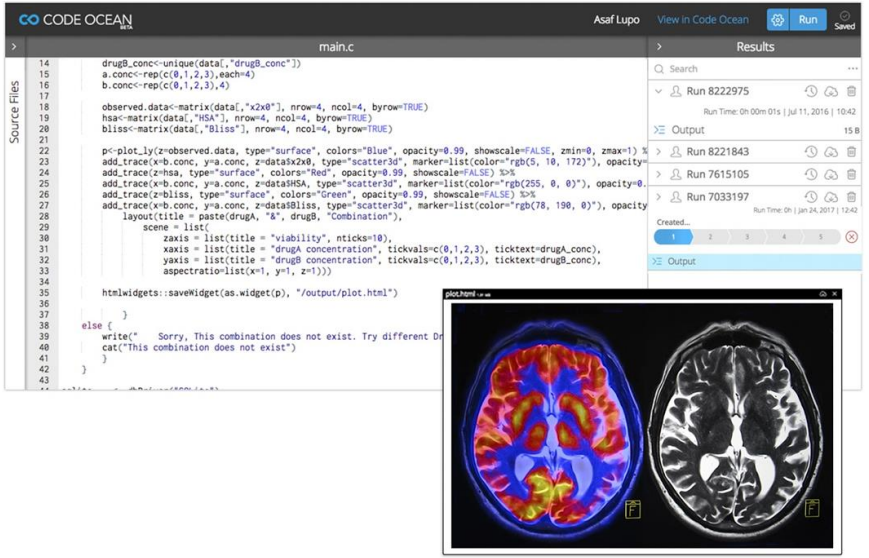
Widget



Publisher's platform and content

Plus Code Ocean's technology





Why is it important?

Reproducibility

Code Ocean allows other researchers to run the code, to test for reproducible results, and also execute the code with new input values.

Impact

There is a positive correlation between the availability of code and software and the number of citations

Reuse

Allows users to run multiple versions of the algorithm augmenting the code or/and using alternative inputs.

Move beyond the pdf

Brings authors work alive in an executable environment and provides a new level of engagement to end users.

Thank you for your time

Pierre Montagano

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