UTMLead: Online Learning Training

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UTM

My four ingredients in teaching and learning programming throughout the "lockdown"

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Theories:

Picciano, A. G. (2017). Theories and frameworks for online education: Seeking an integrated model. *Online Learning, 21*(3), 166-190.

Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The difference between emergency remote teaching and online learning. Educause Review, 27.

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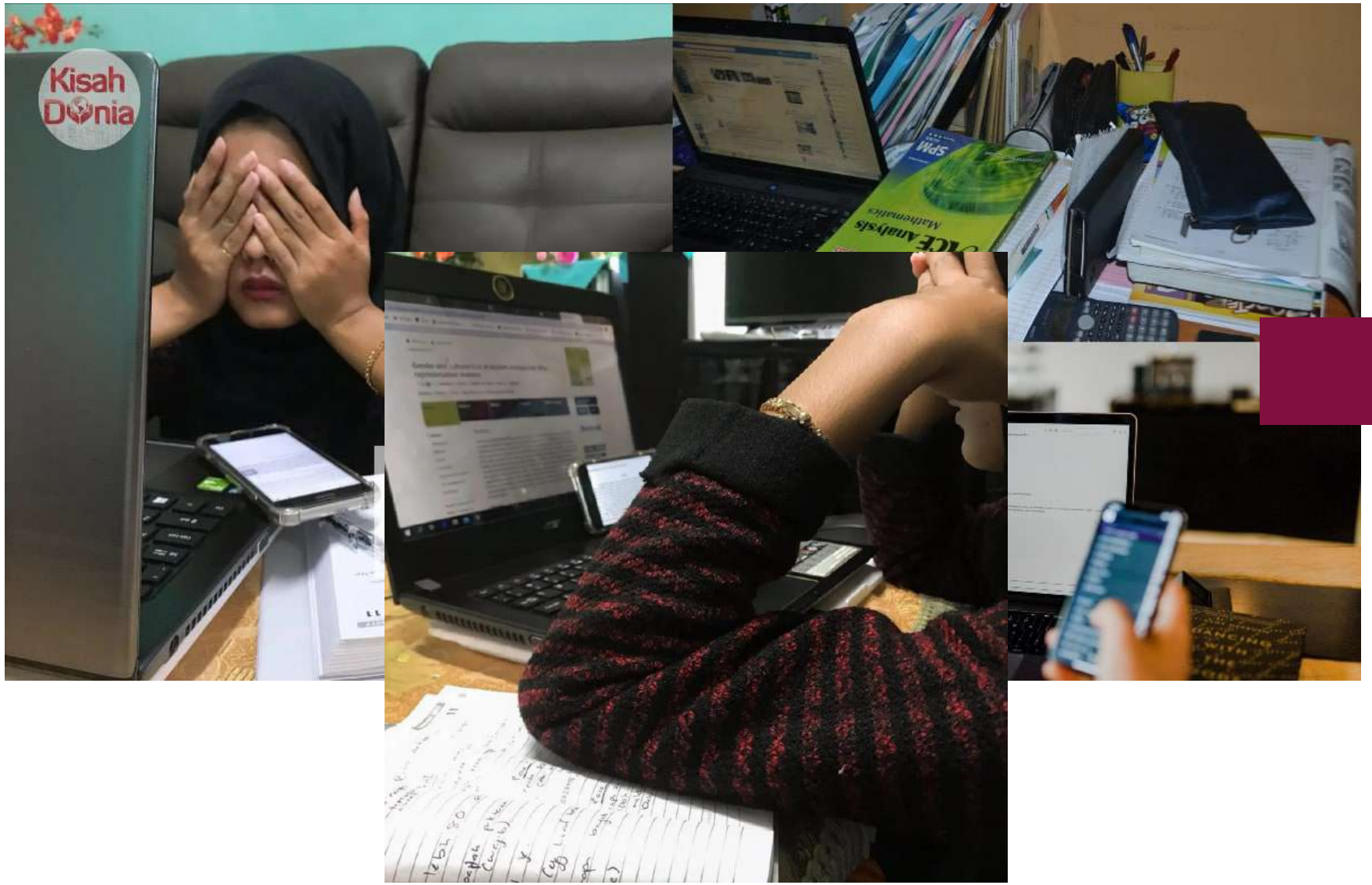
My four ingredients in teaching and learning programming throughout the “lockdown”

A. Why?

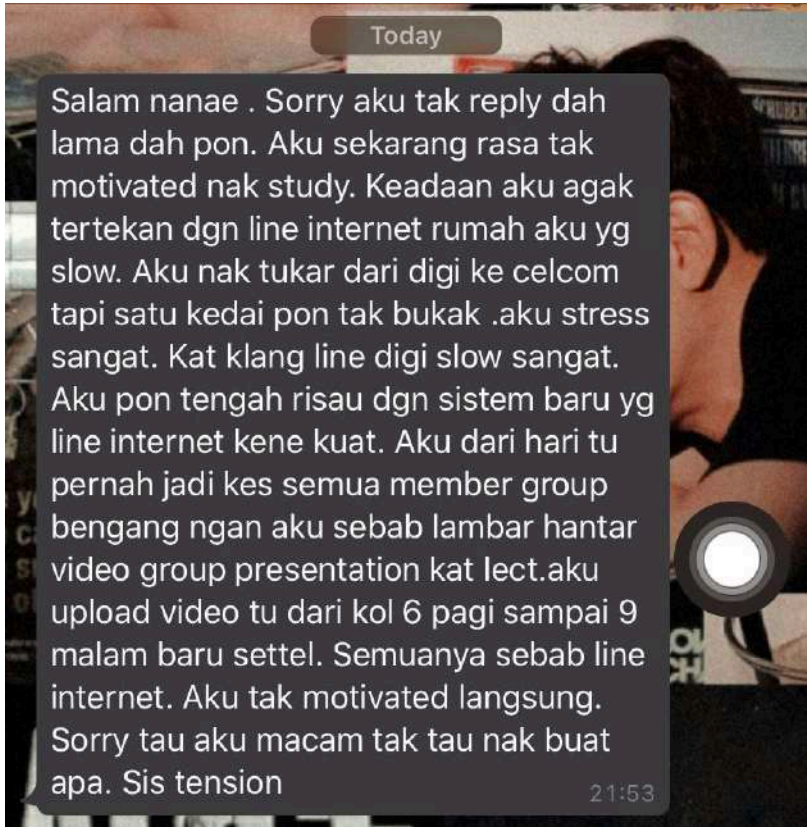


Equipments

Gramir Xhazril

@amirazril_

Harap harap ramai la perasan tweet aku ni. Fyi, ramai student dah mula mental breakdown hadap online class ni. Nak tahu sebab apa? Assessment yang terlampau banya, due date singkat, material limited, source limited. So ada apa apa solution untuk mudah and lancarkan online class?



Coping Changes

By Christy Yip

By Ruth Smalley

CNA Insider

Home-based learning blues: Life in a rental flat during the COVID-19 circuit breaker

29 Apr 2020 01:08PM
(Updated: 30 Apr 2020 03:42PM)

Bookmark

What the past two weeks of staying home 24/7 has been like for four Singaporean families living in one- and two-room flats.

Tina's two primary school-going children, one son in Secondary 4 and a daughter in polytechnic have to manage home-based learning in their two-room rental flat.

SINGAPORE: It is 9am and Ella is about to attend her first lecture as a polytechnic student.

Environment

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News from Elsewhere

Malaysian student sits exams in a tree to ensure good wifi

By News from Elsewhere...
...as found by BBC Monitoring

18 June

YOUTUBE/VEVEONAH M.

Science student Veveonah Mosibin completed two tests in a treetop then slept there when it got dark

A university student in Malaysia who went out on a limb to ensure she had a good internet connection to sit her exams online has impressed many with her resourcefulness.

Eighteen-year-old Veveonah Mosibin lives in Sabanalang Pitas village, in a remote part of the eastern state of Sabah, where **broadband services are limited**.

There is **no electricity or running water in her house** and Ms Mosibin has said she charges her mobile phone at the houses of relatives and neighbours who do have electricity.

She had prepared for her tests a fortnight previously by building a small shelter on a hill where 3G reception for the area is good.

Rural Challenges

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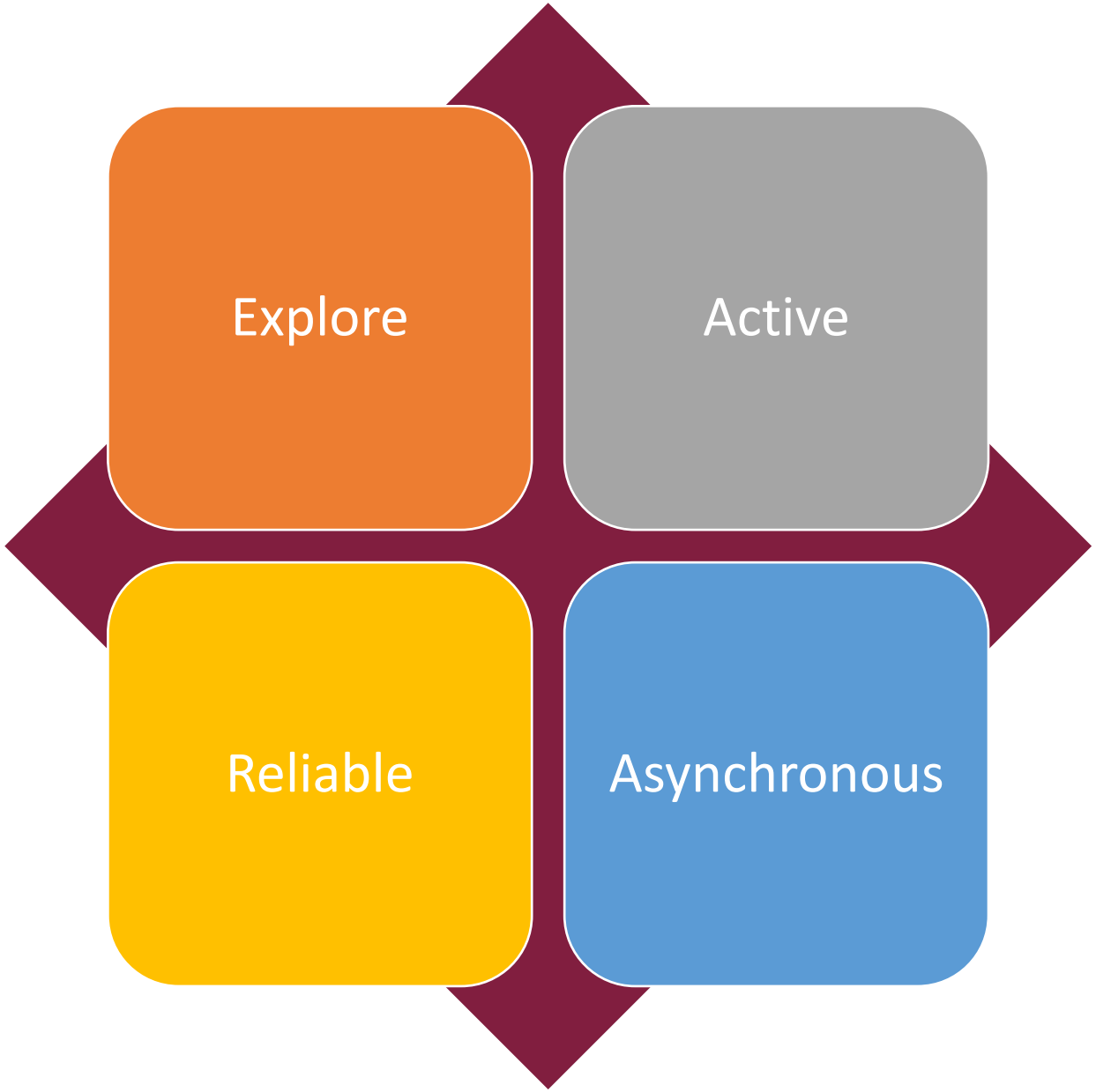
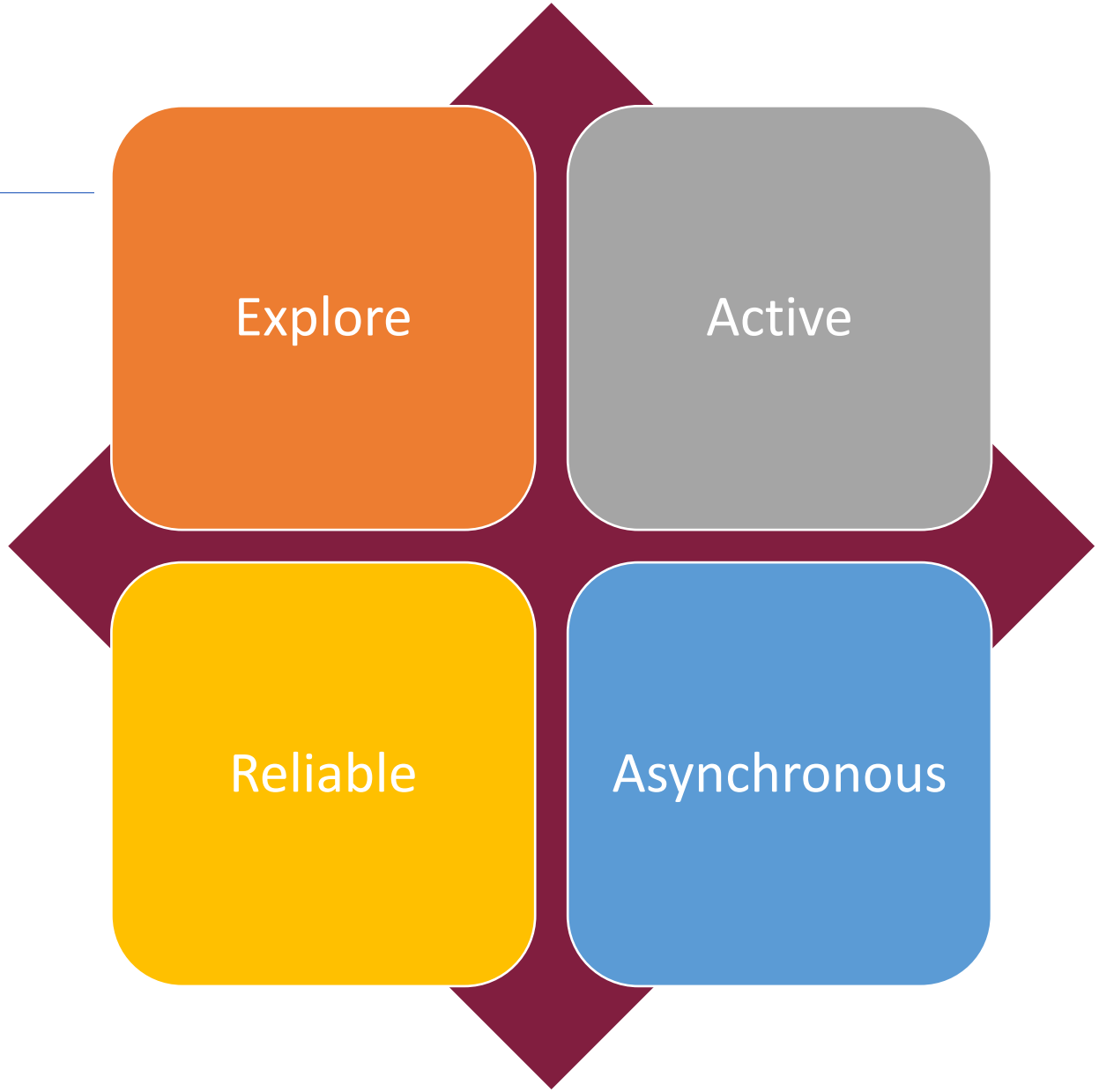
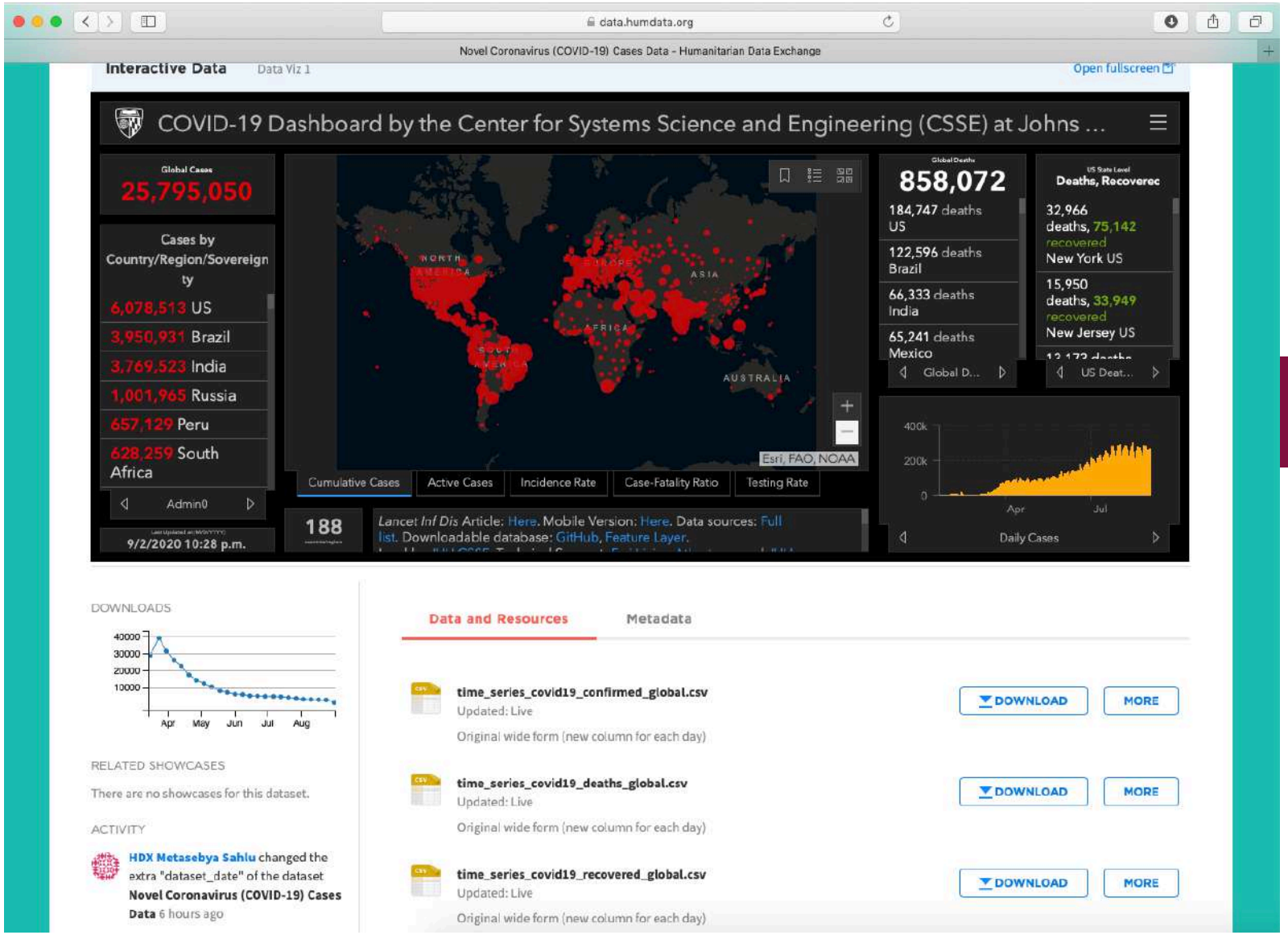
My four ingredients in teaching and learning programming throughout the “lockdown”

B. How?

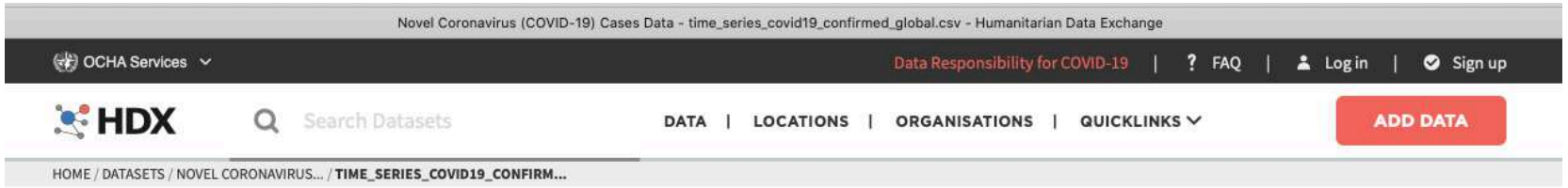

Explore
Active
Reliable
Asynchronous

1. COVID19 Dataset





Of interest & Trusted



time_series_covid19_confirmed_global.csv

URL: https://data.humdata.org/hxlproxy/api/data-preview.csv?url=https%3A%2F%2Fraw.githubusercontent.com%2FCSSEGISandData%2FCOVID-19%2Fmaster%2Fcsse_covid_19_data%2Fcsse_covid_19_time_series%2Ftime_series_covid19_confirmed_global.csv&filename=time_series_covid19_confirmed_global.csv

Original wide form (new column for each day)

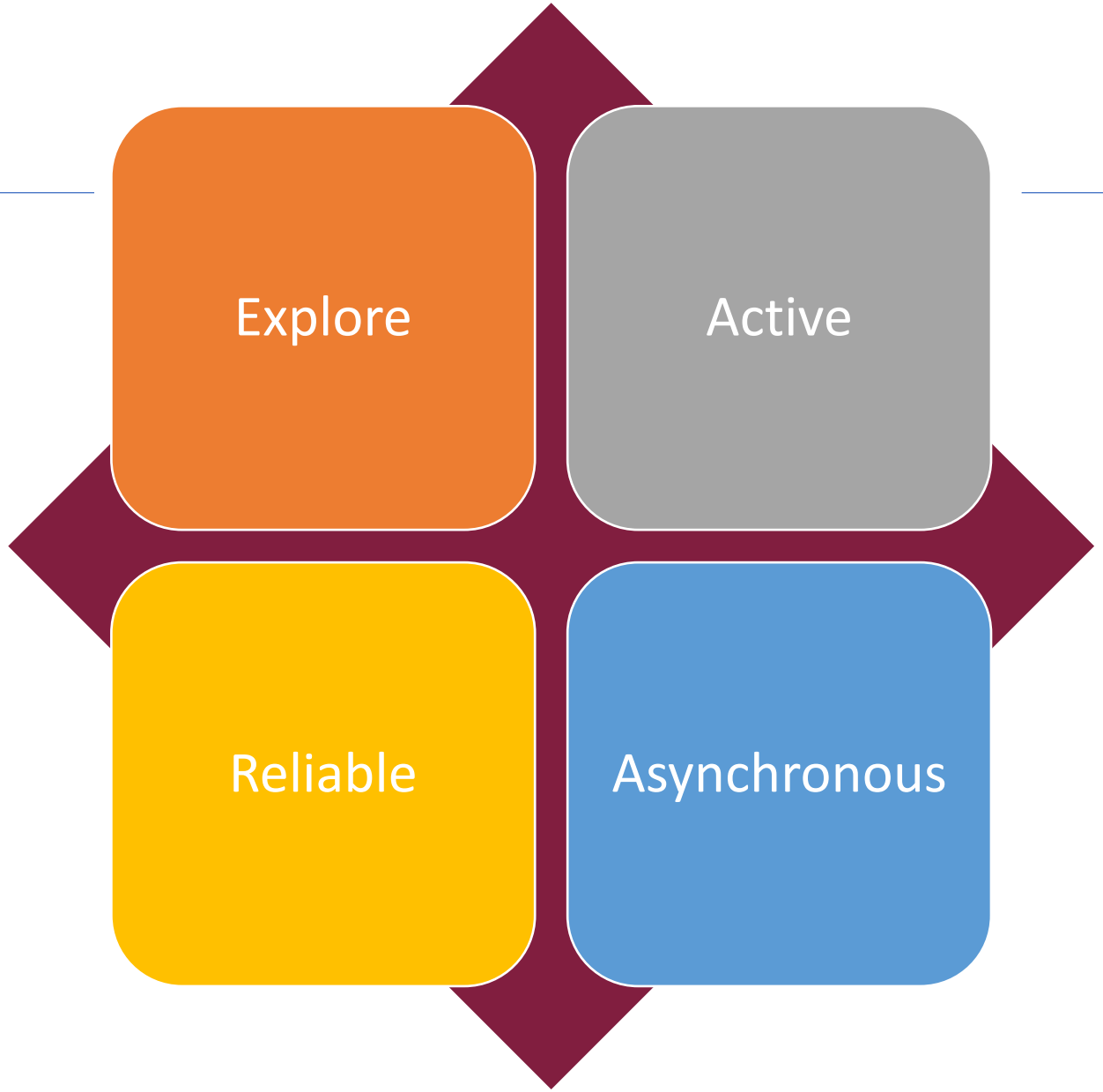
Formatted & Daily Updates

Data Explorer

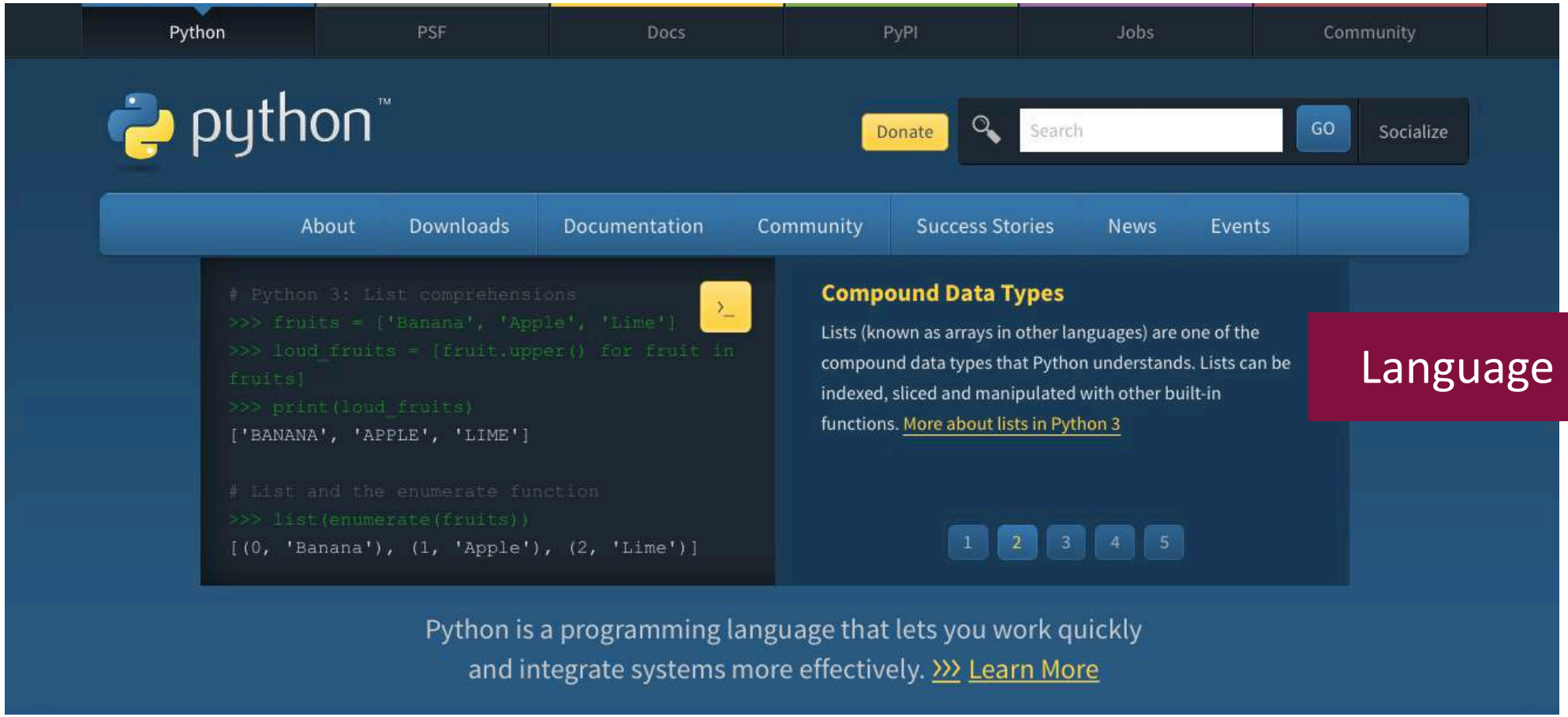
Grid | Graph | Map | 266 records | « 1 – 100 » | Search data ... | Go » | Filters

18/20	8/19/20	8/20/20	8/21/20	8/22/20	8/23/20	8/24/20	8/25/20	8/26/20	8/27/20	8/28/20	8/29/20	8/30/20	8/31/20	9/1/20
99	37599	37856	37894	37953	37999	38054	38070	38113	38129	38140	38143	38162	38165	38196
4	7812	7967	8119	8275	8427	8605	8759	8927	9083	9195	9279	9380	9513	9606
44	39847	40258	40667	41068	41460	41858	42228	42619	43016	43403	43781	44146	44494	44833
5	1024	1024	1045	1045	1045	1060	1060	1098	1098	1124	1124	1124	1176	1184
3	2015	2044	2068	2134	2171	2222	2283	2332	2415	2471	2551	2624	2654	2729
	94	94	94	94	94	94	94	94	94	94	94	94	94	94
966	312659	320884	329043	336802	342154	350867	359638	370188	380292	392009	401239	408426	417735	428239
46	42056	42319	42477	42616	42792	42825	42936	43067	43270	43451	43626	43750	43781	43878
	113	113	113	113	113	113	113	113	113	113	113	113	113	113
5	3971	3972	3981	3985	3988	3991	3997	4006	4019	4033	4040	4050	4063	4079
	33	33	33	33	33	33	33	33	33	33	33	33	33	33
2	1093	1094	1103	1105	1106	1106	1107	1110	1113	1117	1121	1122	1124	1126
	462	462	462	462	463	463	463	463	463	463	463	463	463	463
	230	230	230	230	230	230	230	230	230	230	230	230	230	230
46	17683	17852	18029	18231	18330	18464	18608	18714	18822	18903	19015	19080	19138	19224
	651	651	651	652	652	653	653	653	655	655	655	655	655	655

1. COVID19 Dataset



2. Python Programming



Language of the Day

Departments | At Work | Tech Careers

22 Jul 2020 | 18:15 GMT

Top Programming Languages 2020

Python rules the roost, but Cobol gets a pandemic bump

By **Stephen Cass**

Explore the Interactive Rankings

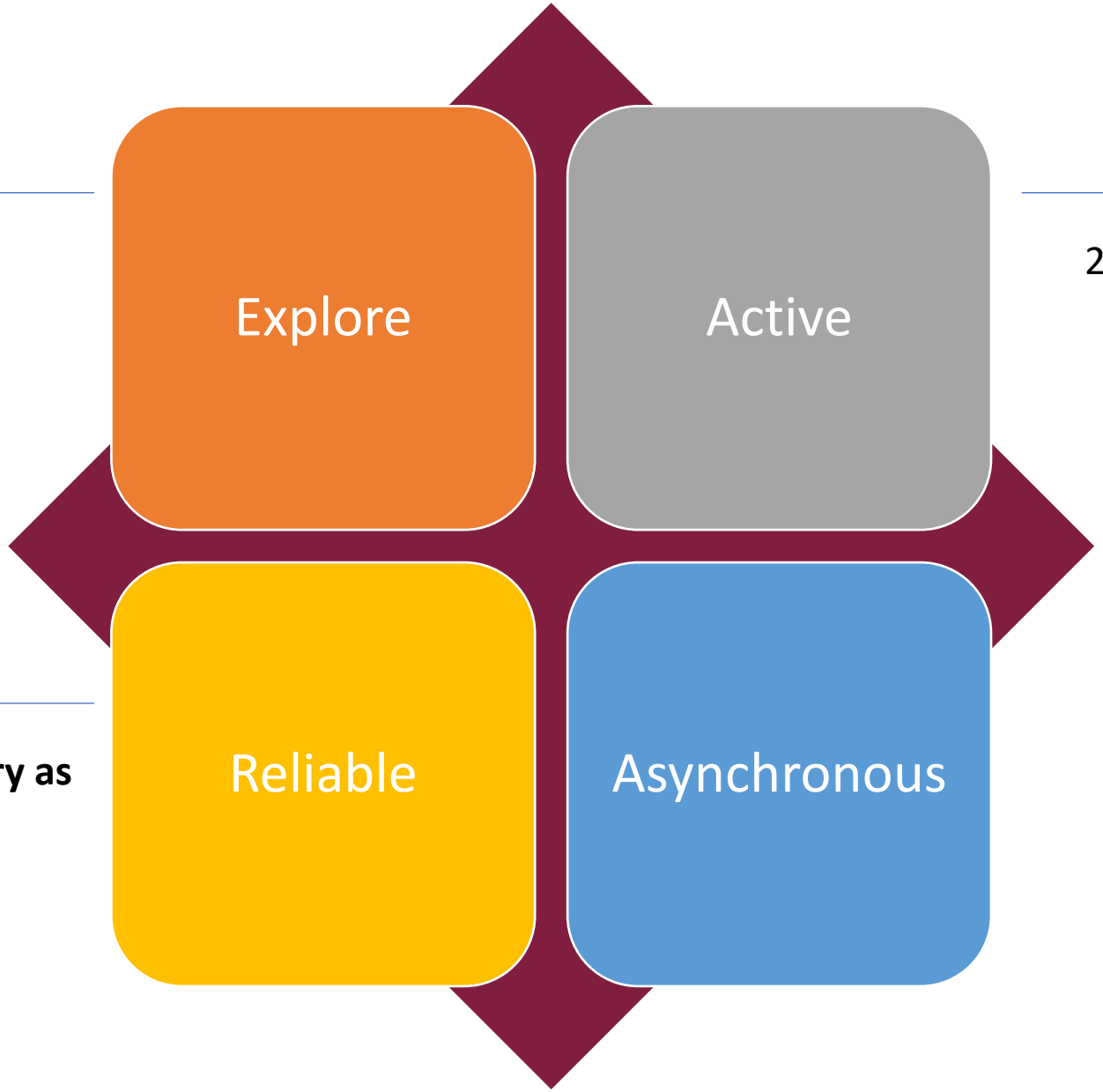
It would be an understatement to say it's been a turbulent year since the last time *IEEE Spectrum* broke out the digital measuring tools to probe the relative popularity of programming languages. Yet one thing remains constant: the dominance of Python.

Since it's impossible for even the most aggressive spy agency in the world to find out what language every single programmer uses when they sit down at their keyboards —especially the ones tapping away on retro computers or

Rank	Language	Type	Score
1	Python	web desktop system	100.0
2	Java	web mobile desktop	95.3
3	C	mobile desktop system	94.6
4	C++	mobile desktop system	87.0
5	JavaScript	web	79.5
6	R	desktop	78.6
7	Arduino	system	73.2
8	Go	web desktop	73.1
9	Swift	mobile desktop	70.5
10	Matlab	desktop	68.4

1. COVID19 Dataset

2. Python Programming



3. Google Colaboratory as the Programming Platform

racingbarchart.ipynb

File Edit View Insert Runtime Tools Help Last edited on August 6

Comment Share

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Connect Editing

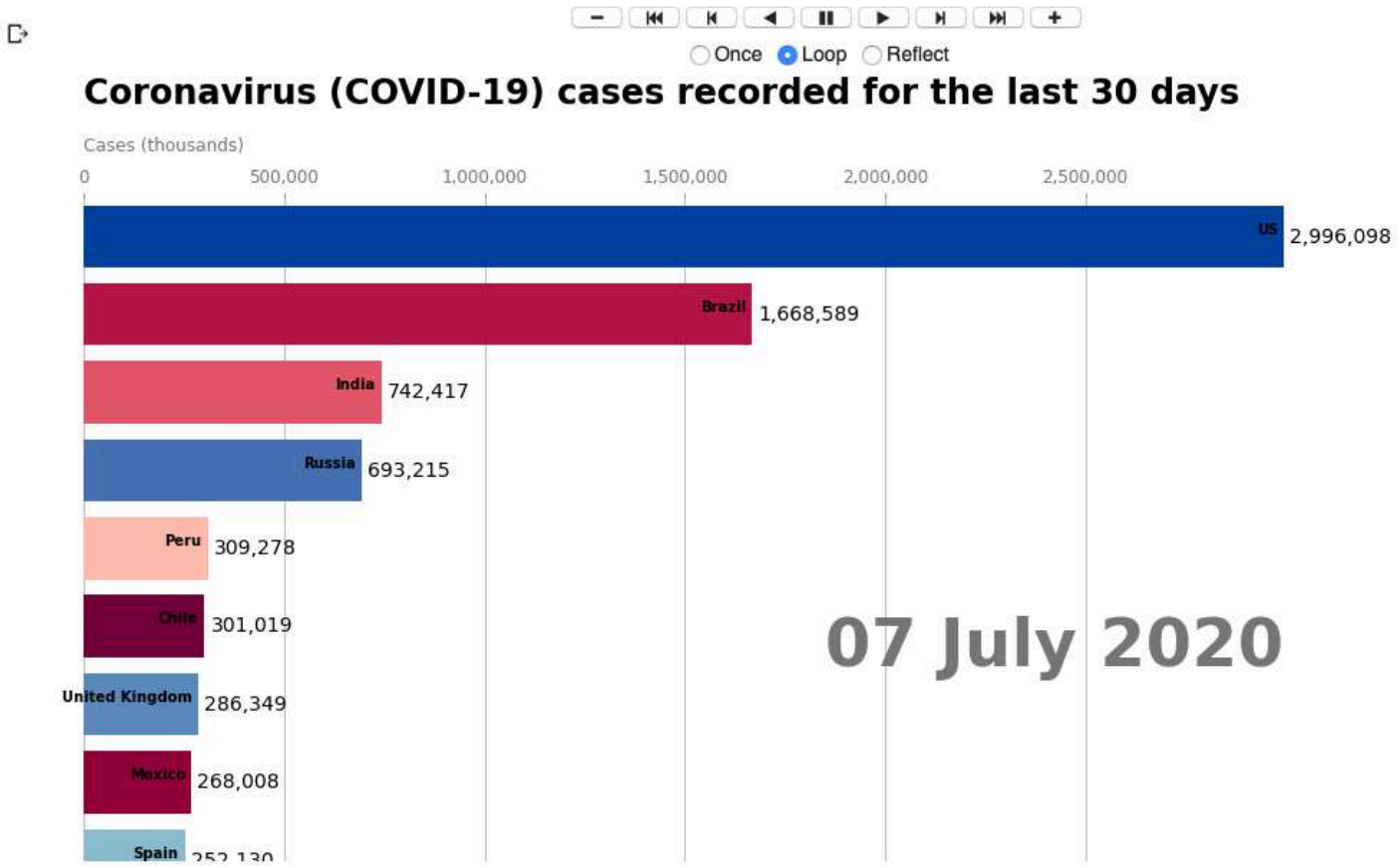
```
1 import pandas as pd
2 import matplotlib.pyplot as plt
3 import matplotlib.ticker as ticker
4 import matplotlib.animation as animation
5 import datetime
6 from IPython.display import HTML
```

```
[ ] 1 df = pd.read_csv('https://data.humdata.org/hxlproxy/api/data-preview.csv?url=https%3A%2F%2Fraw.githubusercontent.com%2FCSSEGISandData%2FCOVID-19
    2
    3
    4 a = list(df.columns.values)
    5 dates = a[-30:]
    6
    7 count = 0
    8 dff = (df.sort_values(by=dates[count], ascending=False)
    9         .head(10))
   10 dff
   11
```

	Province/State	Country/Region	Lat	Long	1/22/20	1/23/20	1/24/20	1/25/20	1/26/20	1/27/20	1/28/20	1/29/20	1/30/20	1/31/20	2/1/
225	NaN	US	40.000000	-100.000000	1	1	2	2	5	5	5	5	5	7	
28	NaN	Brazil	-14.235000	-51.925300	0	0	0	0	0	0	0	0	0	0	
131	NaN	India	20.593684	78.962880	0	0	0	0	0	0	0	0	1	1	
187	NaN	Russia	61.524010	105.318756	0	0	0	0	0	0	0	0	0	2	
181	NaN	Peru	-9.190000	-75.015200	0	0	0	0	0	0	0	0	0	0	
48	NaN	Chile	-35.675100	-71.543000	0	0	0	0	0	0	0	0	0	0	
223	NaN	United Kingdom	55.378100	-3.436000	0	0	0	0	0	0	0	0	0	2	
158	NaN	Mexico	23.634500	-102.552800	0	0	0	0	0	0	0	0	0	0	
201	NaN	Spain	40.463667	-3.749220	0	0	0	0	0	0	0	0	0	0	
133	NaN	Iran	32.427908	53.688046	0	0	0	0	0	0	0	0	0	0	

10 rows × 201 columns

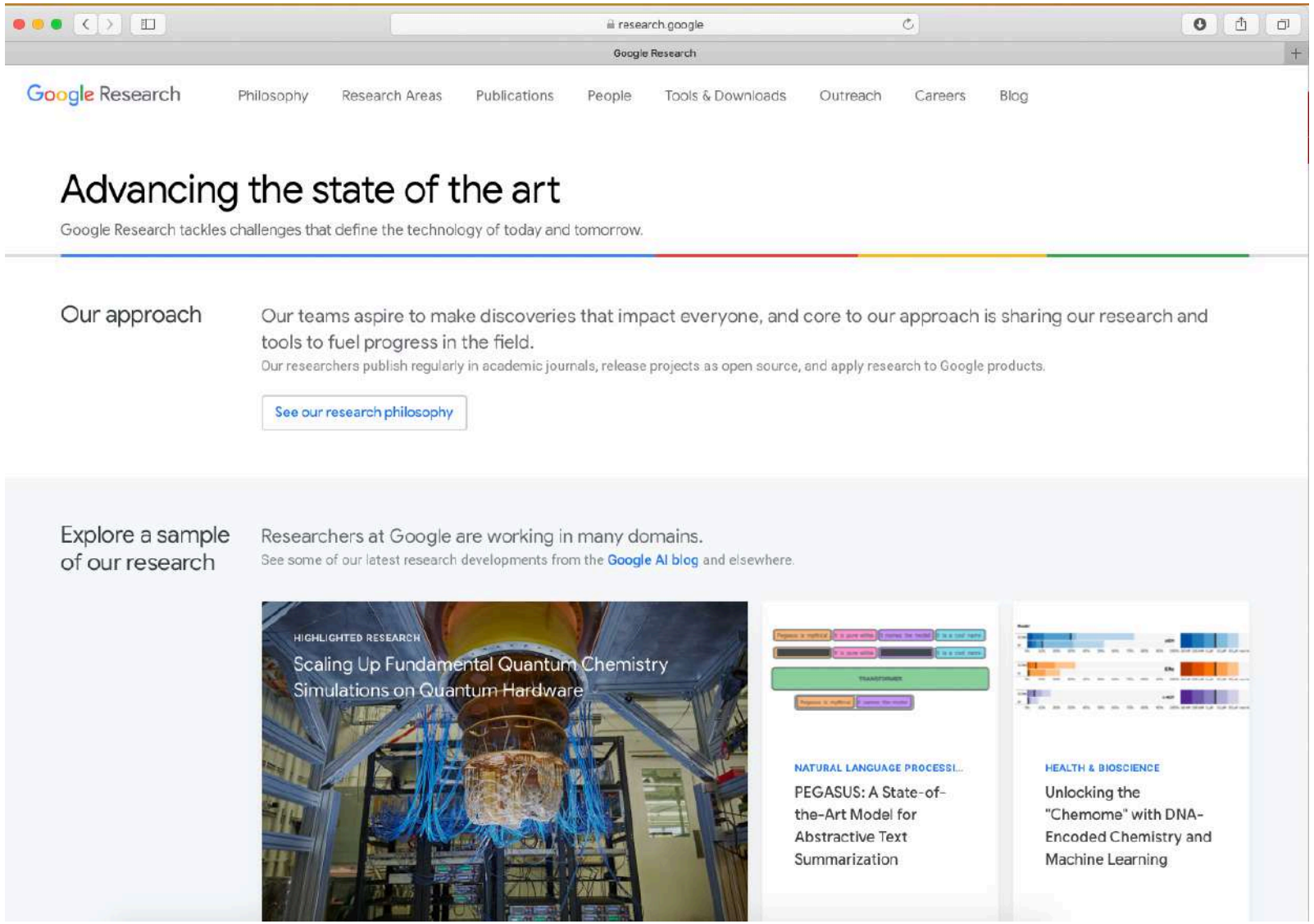
Code / Compile / Collaborate



Realtime Output

```
[ ]  1
     2 # Set up formatting for the movie files
     3 Writer = animation.writers['ffmpeg']
     4 writer = Writer(fps=15, metadata=dict(artist='farhan'), bitrate=1800)
     5
     6 animator.save('lines.mp4', writer=writer)
     7
```

10 -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Google Research tackles challenges that define the technology of today and tomorrow.
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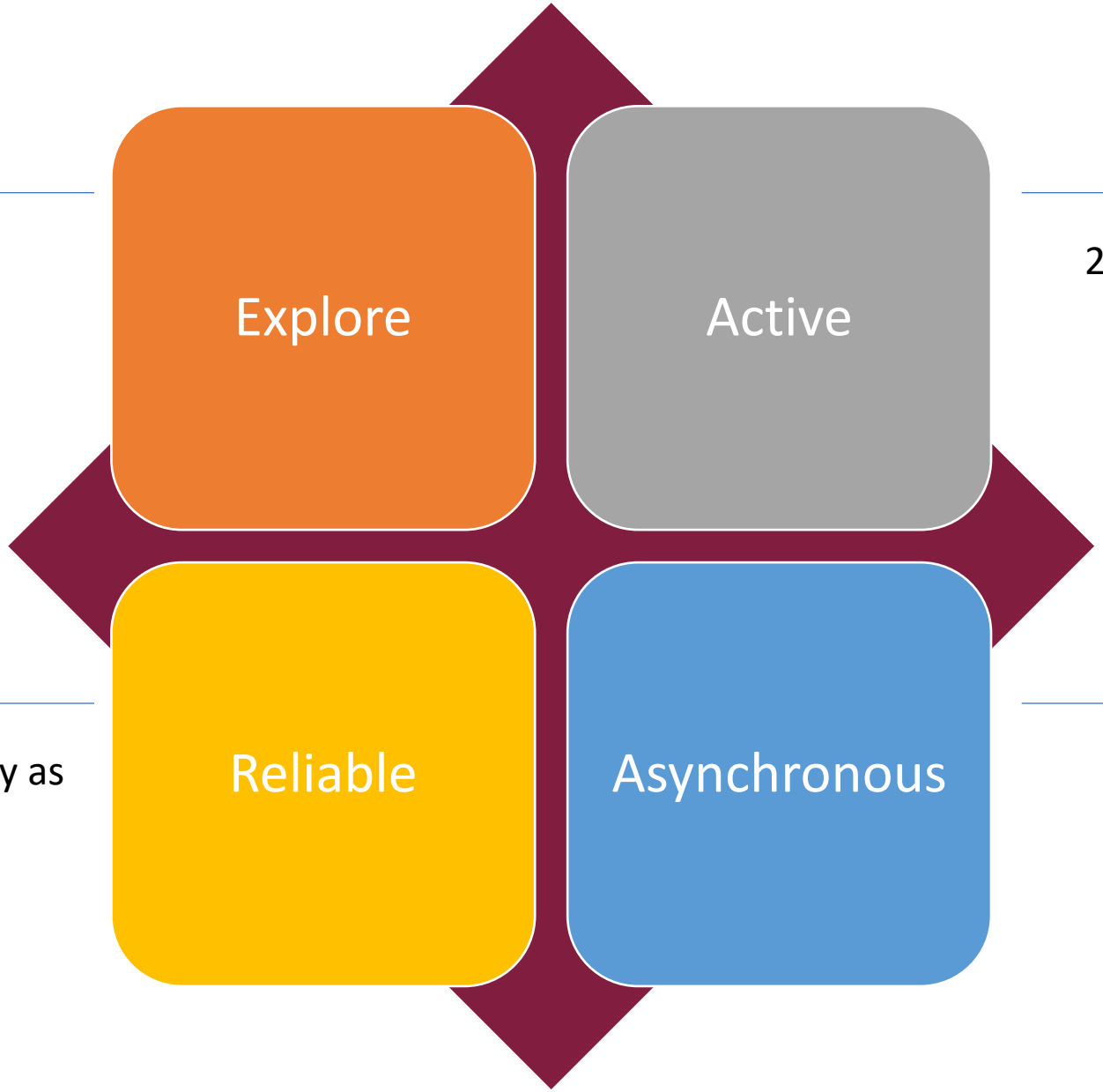
Community

1. COVID19 Dataset



2. Python Programming

3. Google Colaboratory as the Programming Platform

4. YouTube

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Creation Process

loom

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Personal Library

Activity Feed

Folders

Personal Library

4 Videos

New Folder

New Public Folder

Folders

How To Use Loom

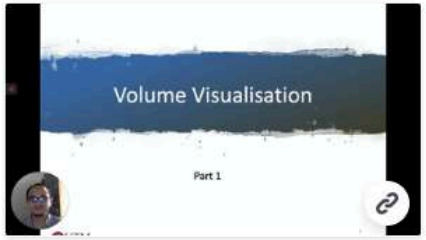
All Videos

16 June, 2020 - Loom Recording

22:14 • 0 views • 3 months ago

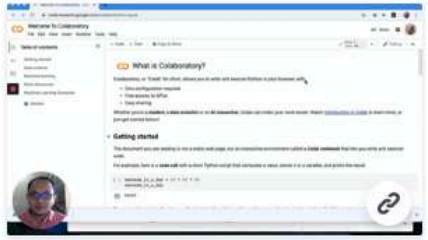
Data Visualisation - Interpolation

9:00 • 41 views • 4 months ago



Introduction to Volume Visualisation

20:33 • 53 views • 4 months ago



COVID19 basic visualisation using Google Colab and Python

37:00 • 77 views • 4 months ago

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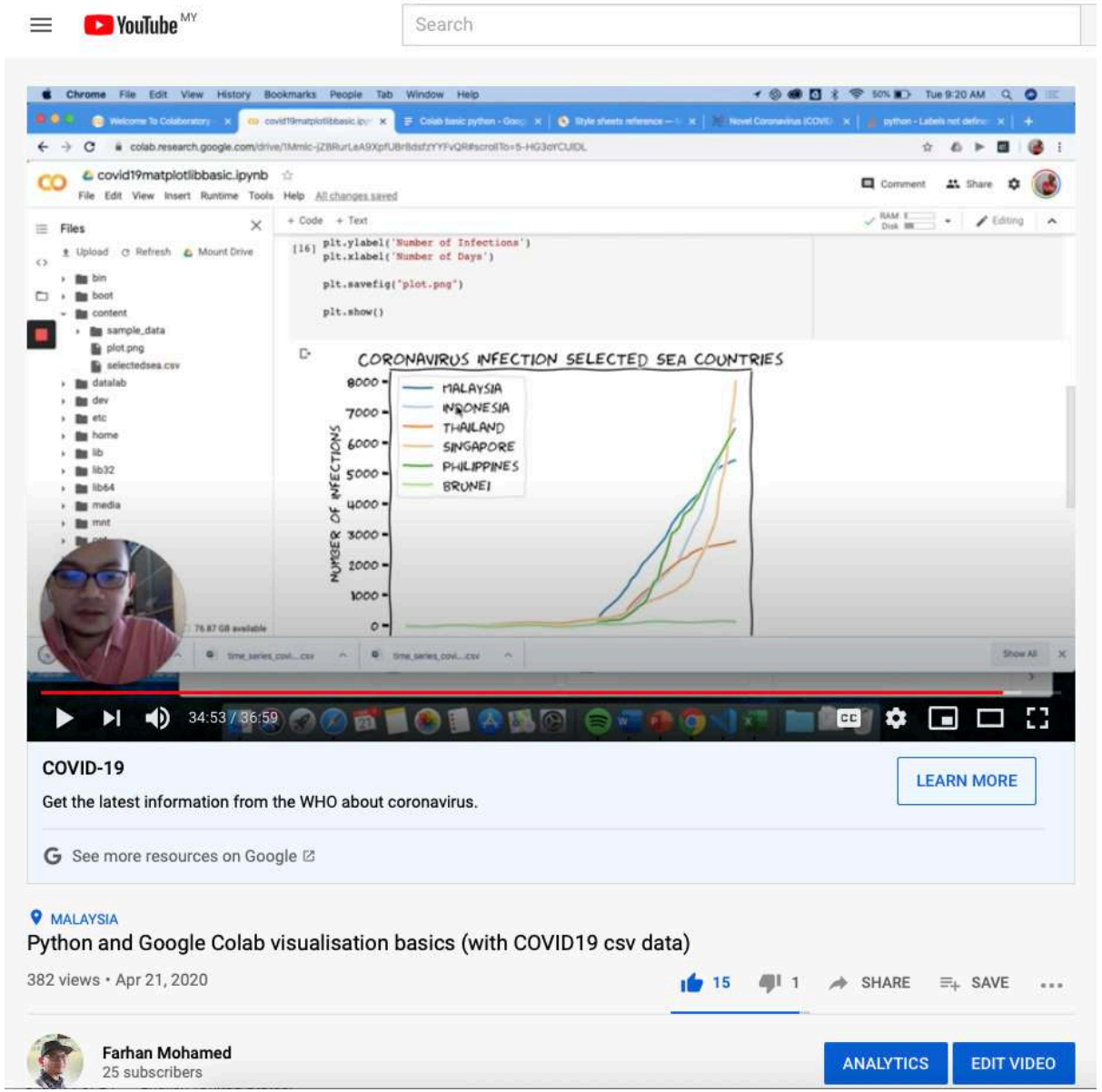
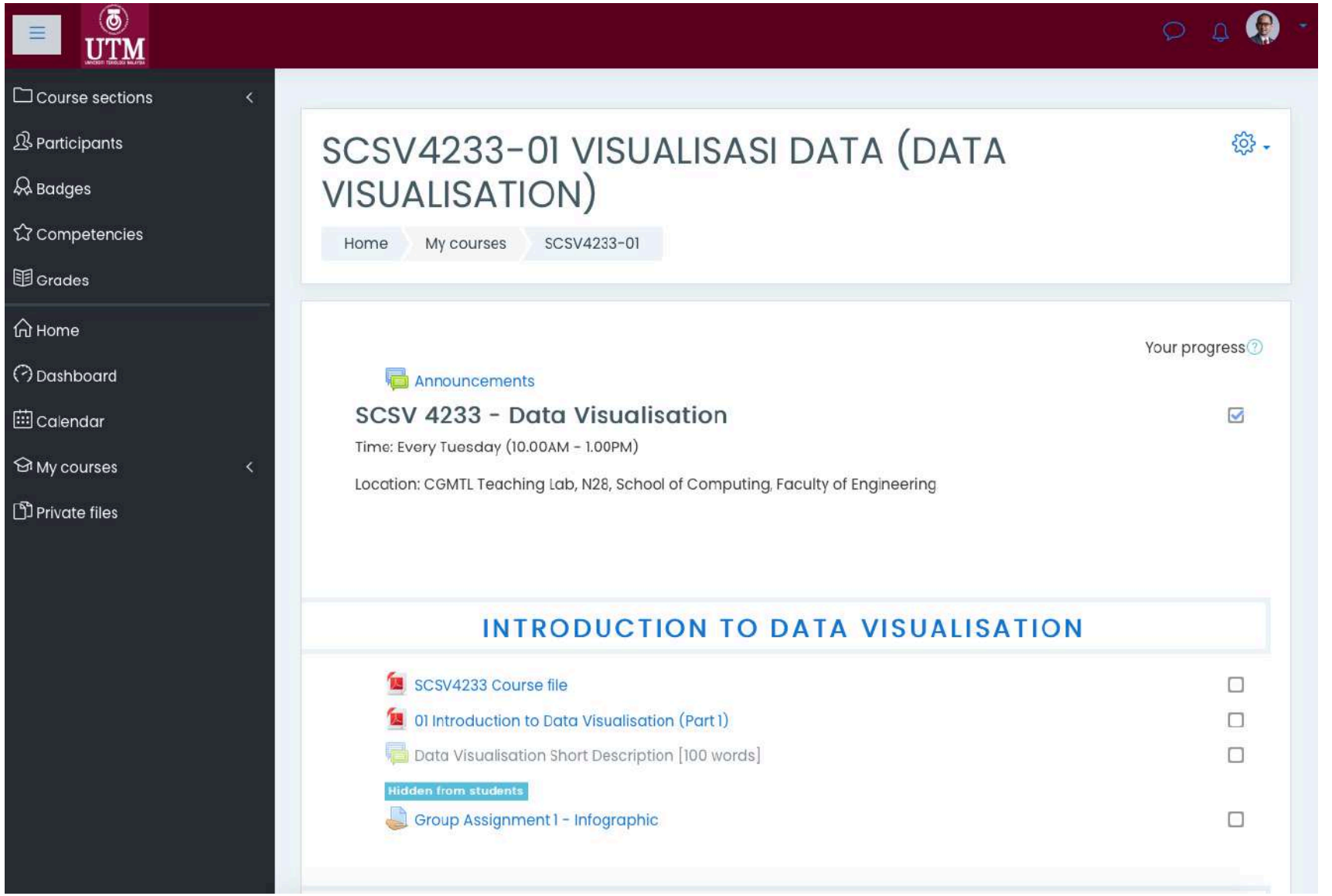
Sharing

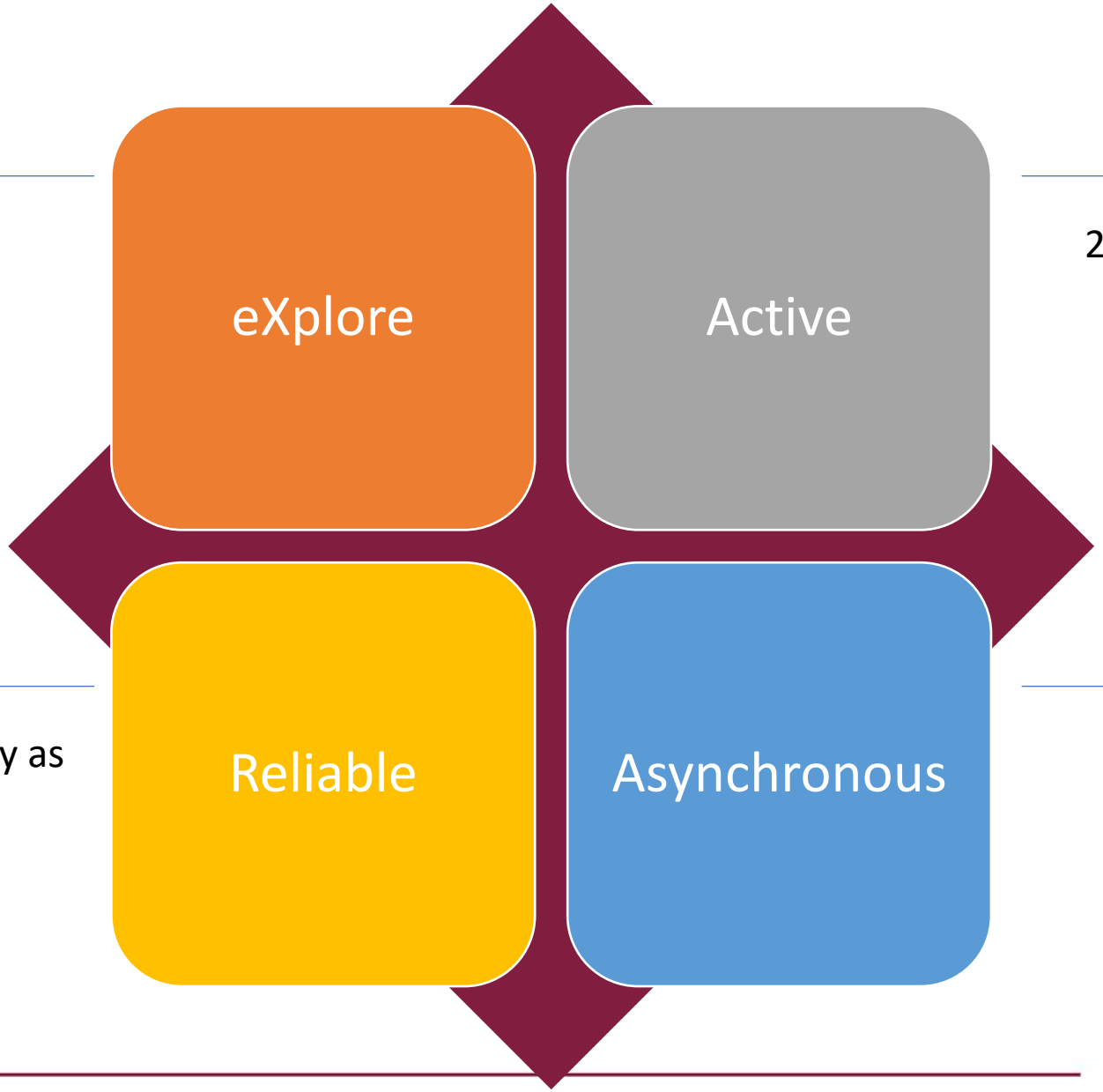




The LMS Platform

The XARA Approach (eXplore, Active, Reliable, Asynchronous)

1. COVID19 Dataset



2. Python Programming

3. Google Colaboratory as the Programming Platform

4. YouTube

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C. Conclusion

Conclusion

There is no instant silver bullet or one-solution-for-all in moving from face-to-face lectures to online learning in the "new norm" teaching and learning. My recipe (solution) emphasises on the technologies that are available and accessible to everyone.

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Thank You

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