

## Code Literacy Workshop with Tristan Espinoza Transcript

1

00:00:01,839 --> 00:00:06,000

2

00:00:03,040 --> 00:00:07,040

So let's get started, good afternoon and

3

00:00:06,000 --> 00:00:08,880

welcome everyone.

4

00:00:07,040 --> 00:00:11,040

Thank you so much for joining us today,

5

00:00:08,880 --> 00:00:12,960

for LAMAGPlay. This Code Literacy

6

00:00:11,040 --> 00:00:13,920

workshop with exhibition artist Tristan

7

00:00:12,960 --> 00:00:15,839

Espinoza,

8

00:00:13,920 --> 00:00:18,160

which is inspired by our current exhibit

9

00:00:15,839 --> 00:00:20,160

of Tristan's work and Index, Interiors.

10

00:00:18,160 --> 00:00:22,160

If you have not already had a chance to

11

00:00:20,160 --> 00:00:23,920

do so I highly encourage you to check

12

00:00:22,160 --> 00:00:26,000  
out the exhibit as well as our program

13

00:00:23,920 --> 00:00:27,519  
with Tristan from a couple of weeks ago.

14

00:00:26,000 --> 00:00:29,359  
And we're going to include links to the

15

00:00:27,519 --> 00:00:32,239  
chat for both of those

16

00:00:29,359 --> 00:00:34,399  
or links to those in the chat pardon me.

17

00:00:32,239 --> 00:00:36,320  
My name is Marissa Gonzalez-Kuchak,

18

00:00:34,399 --> 00:00:38,399  
and I'm an educator here at LAMAG.

19

00:00:36,320 --> 00:00:39,600  
This is our second virtual LAMAGPlay

20

00:00:38,399 --> 00:00:41,440  
program which are usually

21

00:00:39,600 --> 00:00:43,200  
drop in family programs that are held

22

00:00:41,440 --> 00:00:45,039  
under the terrace of the gallery.

23

00:00:43,200 --> 00:00:46,640

So of course we've adjusted the typical

24

00:00:45,039 --> 00:00:47,920  
format for the virtual space and

25

00:00:46,640 --> 00:00:49,360  
structured this one to be more

26

00:00:47,920 --> 00:00:50,559  
interactive so I really hope that you

27

00:00:49,360 --> 00:00:52,640  
enjoy it.

28

00:00:50,559 --> 00:00:54,160  
Before we get started I'd like to

29

00:00:52,640 --> 00:00:55,920  
acknowledge some people who this program

30

00:00:54,160 --> 00:00:57,840  
would not be possible without.

31

00:00:55,920 --> 00:00:59,440  
So thank you to Tristan for developing

32

00:00:57,840 --> 00:01:00,640  
this workshop and sharing your practice

33

00:00:59,440 --> 00:01:02,480  
with us today.

34

00:01:00,640 --> 00:01:04,479  
I also want to thank the Curator of this

35

00:01:02,480 --> 00:01:06,080  
show, Steve Wong as well as the whole the

36

00:01:04,479 --> 00:01:07,680  
LAMAG team for all of the hard work that

37

00:01:06,080 --> 00:01:09,360  
they put into this show.

38

00:01:07,680 --> 00:01:10,960  
And finally I want to thank all of you

39

00:01:09,360 --> 00:01:12,640  
for taking time out of your

40

00:01:10,960 --> 00:01:14,880  
busy schedules and joining us today

41

00:01:12,640 --> 00:01:16,799  
especially on this rainy day.

42

00:01:14,880 --> 00:01:19,040  
Today you're going to learn more

43

00:01:16,799 --> 00:01:21,040  
about Tristan's process and the concept

44

00:01:19,040 --> 00:01:23,360  
of computational poetry.

45

00:01:21,040 --> 00:01:24,880  
We'll begin by creating our own Dadaist

46

00:01:23,360 --> 00:01:27,680

poem inspired by the

47

00:01:24,880 --> 00:01:29,200

method of Tristan Zara and Espinosa will

48

00:01:27,680 --> 00:01:31,600

then show us how that method can

49

00:01:29,200 --> 00:01:33,280

translate into a computational form.

50

00:01:31,600 --> 00:01:35,439

Before we get started we just wanted to

51

00:01:33,280 --> 00:01:37,360

go through a few housekeeping notes,

52

00:01:35,439 --> 00:01:39,280

so if you plan on following along last

53

00:01:37,360 --> 00:01:41,600

reminder, go ahead and gather your

54

00:01:39,280 --> 00:01:43,439

materials which are listed on the screen.

55

00:01:41,600 --> 00:01:44,720

The format for today's workshop is going

56

00:01:43,439 --> 00:01:46,000

to be a little bit different than the

57

00:01:44,720 --> 00:01:47,840

other ones that we've done.

58

00:01:46,000 --> 00:01:49,759

For the first five to ten minutes

59

00:01:47,840 --> 00:01:50,320

Tristan will be sharing some context of

60

00:01:49,759 --> 00:01:53,040

their work

61

00:01:50,320 --> 00:01:54,079

and goals for the workshop today. In

62

00:01:53,040 --> 00:01:55,600

that

63

00:01:54,079 --> 00:01:58,159

area we'll be addressing the questions

64

00:01:55,600 --> 00:01:59,439

at the end so if you do have questions

65

00:01:58,159 --> 00:02:01,520

after that portion of the

66

00:01:59,439 --> 00:02:03,040

presentation you can either

67

00:02:01,520 --> 00:02:04,960

type them into the chat and one of our

68

00:02:03,040 --> 00:02:06,320

staff can read it out for you, or you can

69

00:02:04,960 --> 00:02:07,680

unmute yourself

70

00:02:06,320 --> 00:02:10,319

and share them with Tristan

71

00:02:07,680 --> 00:02:12,080

yourself. Also a reminder at this time

72

00:02:10,319 --> 00:02:13,599

if you weren't muted already please

73

00:02:12,080 --> 00:02:15,200

keep your microphone muted during the

74

00:02:13,599 --> 00:02:17,120

presentation.

75

00:02:15,200 --> 00:02:18,800

After that we're gonna get into the

76

00:02:17,120 --> 00:02:20,319

Dadaist poem demo, which is

77

00:02:18,800 --> 00:02:22,560

what's going to require the materials

78

00:02:20,319 --> 00:02:24,239

which should take about 10 to 15 minutes.

79

00:02:22,560 --> 00:02:26,480

And that's going to lead into the

80

00:02:24,239 --> 00:02:28,480

computational poetry instruction.

81

00:02:26,480 --> 00:02:30,560

So the computational poetry is a

82

00:02:28,480 --> 00:02:32,800

little more

83

00:02:30,560 --> 00:02:34,560

not complicated but it's we're going to

84

00:02:32,800 --> 00:02:36,000

be going through things step by step and

85

00:02:34,560 --> 00:02:37,519

it's a little more instructional so

86

00:02:36,000 --> 00:02:38,879

if you do have any questions while we're

87

00:02:37,519 --> 00:02:39,440

going through that and reviewing the

88

00:02:38,879 --> 00:02:41,120

code

89

00:02:39,440 --> 00:02:42,560

just feel free to unmute yourself and

90

00:02:41,120 --> 00:02:45,200

ask them out loud.

91

00:02:42,560 --> 00:02:46,239

And as I mentioned all of these sections

92

00:02:45,200 --> 00:02:47,840



as well as what we're doing right now

93

00:02:46,239 --> 00:02:49,360

are going to be recorded

94

00:02:47,840 --> 00:02:51,599

after the instructional portion we'll

95

00:02:49,360 --> 00:02:53,440

stop recording and have 10 minutes for

96

00:02:51,599 --> 00:02:55,440

reflecting in questions.

97

00:02:53,440 --> 00:02:57,280

So as a final reminder please keep your

98

00:02:55,440 --> 00:02:59,120

microphones muted so we can avoid any

99

00:02:57,280 --> 00:03:01,280

feedback and technical issues

100

00:02:59,120 --> 00:03:03,599

and if your microphone is inadvertently

101

00:03:01,280 --> 00:03:06,400

unmuted we'll take care of that for you.

102

00:03:03,599 --> 00:03:07,840

And I also wanted to make sure that we

103

00:03:06,400 --> 00:03:10,000

had the announcement

104  
00:03:07,840 --> 00:03:11,840  
that if you do need closed captioning

105  
00:03:10,000 --> 00:03:13,360  
that service is being provided today

106  
00:03:11,840 --> 00:03:15,360  
through the link that we put in the chat

107  
00:03:13,360 --> 00:03:18,080  
earlier.

108  
00:03:15,360 --> 00:03:19,519  
So without further ado let's get started

109  
00:03:18,080 --> 00:03:21,120  
it's my great pleasure to welcome

110  
00:03:19,519 --> 00:03:23,519  
Tristan Espinosa.

111  
00:03:21,120 --> 00:03:25,840  
Tristan is an artist, programmer, and

112  
00:03:23,519 --> 00:03:27,760  
organizer who lives in Los Angeles.

113  
00:03:25,840 --> 00:03:29,760  
He uses his practice to inquire

114  
00:03:27,760 --> 00:03:31,599  
about displacement and proximity in the

115  
00:03:29,760 --> 00:03:33,360

context of networked life.

116

00:03:31,599 --> 00:03:35,599

By mediating personal archives through

117

00:03:33,360 --> 00:03:36,000

computation, he negotiates a sense of

118

00:03:35,599 --> 00:03:38,400

place

119

00:03:36,000 --> 00:03:40,720

and unsettles the image as a data point.

120

00:03:38,400 --> 00:03:43,120

Espinosa also co-organizes

121

00:03:40,720 --> 00:03:45,120

Tiny Tech Zines, a tech zine fair that

122

00:03:43,120 --> 00:03:47,200

emphasizes care and community in our

123

00:03:45,120 --> 00:03:48,560

relationships with technology.

124

00:03:47,200 --> 00:03:50,799

Their work has been exhibited

125

00:03:48,560 --> 00:03:51,440

internationally and in the U.S. in places

126

00:03:50,799 --> 00:03:53,439

such as

127  
00:03:51,440 --> 00:03:54,480  
Archer Beach Haus Chicago, Human

128  
00:03:53,439 --> 00:03:57,120  
Resources

129  
00:03:54,480 --> 00:03:58,159  
in Los Angeles and Espinoza is a current

130  
00:03:57,120 --> 00:03:59,920  
MFA candidate

131  
00:03:58,159 --> 00:04:02,319  
at the University of California, Los

132  
00:03:59,920 --> 00:04:03,920  
Angeles Design Media Arts program and

133  
00:04:02,319 --> 00:04:05,760  
holds a BFA from The School of the Art

134  
00:04:03,920 --> 00:04:10,080  
Institute of Chicago.

135  
00:04:05,760 --> 00:04:10,080  
So with that take it away Tristan.

136  
00:04:10,959 --> 00:04:16,880  
Hi everybody it's so nice to

137  
00:04:14,720 --> 00:04:18,239  
be online together. I feel like in a

138  
00:04:16,880 --> 00:04:18,720

different world and maybe you could have

139

00:04:18,239 --> 00:04:21,680

been

140

00:04:18,720 --> 00:04:23,199

doing this in person and cutting up text

141

00:04:21,680 --> 00:04:24,240

and proximity to one another

142

00:04:23,199 --> 00:04:26,320

and that would have been really fun and

143

00:04:24,240 --> 00:04:27,120

interesting. But maybe that's something

144

00:04:26,320 --> 00:04:31,440

that'll open up

145

00:04:27,120 --> 00:04:34,479

later this year.

146

00:04:31,440 --> 00:04:36,800

Okay I guess it's a good time

147

00:04:34,479 --> 00:04:40,000

to get started. Before we dive into

148

00:04:36,800 --> 00:04:44,320

things I would encourage everyone to

149

00:04:40,000 --> 00:04:47,680

go and grab whatever materials they need.

150

00:04:44,320 --> 00:04:49,600

Also to have a glass of water around

151

00:04:47,680 --> 00:04:50,720

if there's any point during the workshop

152

00:04:49,600 --> 00:04:52,000

where you feel like you need to take

153

00:04:50,720 --> 00:04:52,400

space and kind of care for your own

154

00:04:52,000 --> 00:04:53,919

needs,

155

00:04:52,400 --> 00:04:57,840

please feel free to do so and just

156

00:04:53,919 --> 00:04:57,840

wanted to acknowledge that upfront.

157

00:04:58,160 --> 00:05:04,880

So this workshop is

158

00:05:01,759 --> 00:05:06,479

really inspired by a part of my practice

159

00:05:04,880 --> 00:05:08,320

that I've started to return to which is

160

00:05:06,479 --> 00:05:11,520

working

161

00:05:08,320 --> 00:05:13,440

with language in a computational way.

162

00:05:11,520 --> 00:05:16,960

And I'll kind of start to open up my

163

00:05:13,440 --> 00:05:22,560

project really quickly just to

164

00:05:16,960 --> 00:05:22,560

show how that manifested in the work.

165

00:05:22,840 --> 00:05:28,000

But basically

166

00:05:25,840 --> 00:05:30,000

I created this online book that I

167

00:05:28,000 --> 00:05:34,000

generated from cyanotypes,

168

00:05:30,000 --> 00:05:35,680

and then fed these images to

169

00:05:34,000 --> 00:05:37,919

a computational algorithm that

170

00:05:35,680 --> 00:05:39,759

reinterpreted these images and tried to

171

00:05:37,919 --> 00:05:42,400

generate text

172

00:05:39,759 --> 00:05:44,479

that represents what the algorithm

173

00:05:42,400 --> 00:05:46,160  
thought it noticed. And so

174

00:05:44,479 --> 00:05:47,759  
for something like this image I thought

175

00:05:46,160 --> 00:05:50,880  
I was looking at a snow covered slope

176

00:05:47,759 --> 00:05:50,880  
with a snow covered source

177

00:05:51,120 --> 00:05:55,280  
and then something like this a view of

178

00:05:52,880 --> 00:05:56,720  
the mountain range in the water

179

00:05:55,280 --> 00:05:58,639  
and what was really evocative for me was

180

00:05:56,720 --> 00:06:00,479  
kind of distance between what was being

181

00:05:58,639 --> 00:06:02,080  
represented and what the computational

182

00:06:00,479 --> 00:06:07,039  
algorithm was noticing.

183

00:06:02,080 --> 00:06:10,880  
Also the way that it was

184

00:06:07,039 --> 00:06:14,319



reconfiguring my relationship to the labor of the work

185

00:06:10,880 --> 00:06:15,280  
and so I did a few other kind of

186

00:06:14,319 --> 00:06:18,080  
offshoots

187

00:06:15,280 --> 00:06:19,600  
of this project where I was focusing

188

00:06:18,080 --> 00:06:23,280  
specifically on

189

00:06:19,600 --> 00:06:25,840  
the language portion. A quick

190

00:06:23,280 --> 00:06:27,759  
experiment that just came up for me

191

00:06:25,840 --> 00:06:32,840  
recently was

192

00:06:27,759 --> 00:06:34,160  
making this Twitter bot, called Uncertain

193

00:06:32,840 --> 00:06:37,759  
Times

194

00:06:34,160 --> 00:06:40,400  
and basically it's a Twitter bot that

195

00:06:37,759 --> 00:06:41,440  
algorithmically generates these short

196

00:06:40,400 --> 00:06:43,360  
tweets

197

00:06:41,440 --> 00:06:45,919  
that are kind of ripping on this

198

00:06:43,360 --> 00:06:48,319  
experience especially early

199

00:06:45,919 --> 00:06:50,000  
in quarantine where everyone was kind of

200

00:06:48,319 --> 00:06:51,360  
getting these emails or responses or

201

00:06:50,000 --> 00:06:54,000  
communications

202

00:06:51,360 --> 00:06:55,759  
saying I hope this finds you all in

203

00:06:54,000 --> 00:06:57,199  
these strange and uncertain times.

204

00:06:55,759 --> 00:06:58,960  
And for me, I was kind of like frustrated

205

00:06:57,199 --> 00:07:03,039  
with the

206

00:06:58,960 --> 00:07:06,080  
coldness of that exchange

207

00:07:03,039 --> 00:07:09,120

and trying to work through

208

00:07:06,080 --> 00:07:11,599

I guess like a funny absurdist

209

00:07:09,120 --> 00:07:13,360

critique of that phenomenon by

210

00:07:11,599 --> 00:07:17,840

relegating that labor to

211

00:07:13,360 --> 00:07:17,840

a robot.

212

00:07:18,639 --> 00:07:20,800

So

213

00:07:21,759 --> 00:07:26,240

as we get into the workshop,

214

00:07:26,560 --> 00:07:30,160

and that's just kind of some like

215

00:07:27,680 --> 00:07:33,520

initial boundaries

216

00:07:30,160 --> 00:07:34,240

for the work and you can kind of talk

217

00:07:33,520 --> 00:07:36,479

about some

218

00:07:34,240 --> 00:07:39,120

intentions for today and they're really

219

00:07:36,479 --> 00:07:42,400  
quick really short.

220

00:07:39,120 --> 00:07:45,759  
Write poetry, write code

221

00:07:42,400 --> 00:07:48,720  
make evocative decisions with language,

222

00:07:45,759 --> 00:07:51,520  
and produce a publication. So at the end

223

00:07:48,720 --> 00:07:53,599  
of this there is the option to kind of

224

00:07:51,520 --> 00:07:54,960  
put some of the text that we make

225

00:07:53,599 --> 00:07:56,800  
together into

226

00:07:54,960 --> 00:07:58,400  
a Google Doc if that was something that

227

00:07:56,800 --> 00:07:59,759  
you were interested in and then

228

00:07:58,400 --> 00:08:01,520  
maybe in a week or two from and I'll

229

00:07:59,759 --> 00:08:02,319  
just type that into a book and send it

230

00:08:01,520 --> 00:08:04,720

to everyone.

231

00:08:02,319 --> 00:08:06,400

And it could be just like an interesting

232

00:08:04,720 --> 00:08:07,440

fun takeaway from this time that we

233

00:08:06,400 --> 00:08:10,960

spent together,

234

00:08:07,440 --> 00:08:14,479

and maybe we'll like mark this

235

00:08:10,960 --> 00:08:16,639

kind of interaction with computation

236

00:08:14,479 --> 00:08:18,960

that maybe we haven't had together

237

00:08:16,639 --> 00:08:18,960

before.

238

00:08:19,599 --> 00:08:26,240

I just want to take a few moments for

239

00:08:21,440 --> 00:08:28,400

that to settle in.

240

00:08:26,240 --> 00:08:30,720

And then also one thing that I want to

241

00:08:28,400 --> 00:08:35,360

emphasize with this workshop is that,

242

00:08:30,720 --> 00:08:38,880  
even though it was communicated as a

243

00:08:35,360 --> 00:08:41,919  
code literacy so there are parts of

244

00:08:38,880 --> 00:08:44,399  
the code writing

245

00:08:41,919 --> 00:08:46,720  
where we are kind of going to go through

246

00:08:44,399 --> 00:08:49,839  
some of the we're going to break down

247

00:08:46,720 --> 00:08:53,600  
a line of code and what is involved

248

00:08:49,839 --> 00:08:56,320  
in writing code, but we won't get into

249

00:08:53,600 --> 00:08:57,200  
the super granular details of writing

250

00:08:56,320 --> 00:08:59,760  
code.

251

00:08:57,200 --> 00:09:00,800  
And that's just because there are many

252

00:08:59,760 --> 00:09:03,680  
systems

253

00:09:00,800 --> 00:09:05,279

at play when we are working with

254

00:09:03,680 --> 00:09:07,760

computers

255

00:09:05,279 --> 00:09:09,760

and part of the fun is negotiating with

256

00:09:07,760 --> 00:09:12,880

some of the kind of emergent experiences

257

00:09:09,760 --> 00:09:13,680

of writing code, like typing some words

258

00:09:12,880 --> 00:09:15,440

down and then

259

00:09:13,680 --> 00:09:17,680

errors coming up and then kind of

260

00:09:15,440 --> 00:09:19,040

dealing with that on the fly.

261

00:09:17,680 --> 00:09:21,120

It's also really overwhelming to kind of

262

00:09:19,040 --> 00:09:24,160

go through everything all at once and so

263

00:09:21,120 --> 00:09:28,000

we're trying to find a balance between

264

00:09:24,160 --> 00:09:30,800

introducing some computational concepts

265

00:09:28,000 --> 00:09:31,519  
that'll transfer in scale if there's

266

00:09:30,800 --> 00:09:32,800  
something worth

267

00:09:31,519 --> 00:09:37,839  
if this is something that starts to

268

00:09:32,800 --> 00:09:37,839  
resonate with you moving forward.

269

00:09:38,480 --> 00:09:45,839  
So I'm going to use my

270

00:09:42,800 --> 00:09:45,839  
camera over here

271

00:09:47,680 --> 00:09:51,440  
and then show everyone kind of the

272

00:09:49,440 --> 00:09:52,480  
materials for this first part of the

273

00:09:51,440 --> 00:09:55,279  
workshop.

274

00:09:52,480 --> 00:09:56,560  
I have a piece of paper that I scanned

275

00:09:55,279 --> 00:09:59,040  
and printed out from a book

276

00:09:56,560 --> 00:10:00,240



called Entering the Blobosphere by Laura

277

00:09:59,040 --> 00:10:02,959

Kim,

278

00:10:00,240 --> 00:10:04,880

a container just ceramics that my friend

279

00:10:02,959 --> 00:10:07,839

had made to hear,

280

00:10:04,880 --> 00:10:08,720

a pair of scissors and what we'll end up

281

00:10:07,839 --> 00:10:11,839

doing

282

00:10:08,720 --> 00:10:14,480

is cutting up this piece of text

283

00:10:11,839 --> 00:10:16,079

putting them in the container, and then

284

00:10:14,480 --> 00:10:18,959

as we pull

285

00:10:16,079 --> 00:10:21,360

each word out we'll type them into a

286

00:10:18,959 --> 00:10:21,360

result.

287

00:10:24,000 --> 00:10:28,240

And then at the end of that I think it

288

00:10:26,560 --> 00:10:31,600  
would be

289

00:10:28,240 --> 00:10:33,440  
kind of tragic to talk about poetry but

290

00:10:31,600 --> 00:10:35,120  
then not read any of it so,

291

00:10:33,440 --> 00:10:36,720  
we'll take some time after this activity

292

00:10:35,120 --> 00:10:37,680  
to kind of go through some of the

293

00:10:36,720 --> 00:10:41,200  
readings

294

00:10:37,680 --> 00:10:41,760  
and read aloud some of what we produce

295

00:10:41,200 --> 00:10:45,120  
together,

296

00:10:41,760 --> 00:10:47,519  
and then start coding. I hope that makes

297

00:10:45,120 --> 00:10:49,760  
sense.

298

00:10:47,519 --> 00:10:49,760

299

00:10:50,720 --> 00:10:57,279

Let's get into it, so

300

00:10:54,000 --> 00:10:59,040

for the Dadaist poem

301

00:10:57,279 --> 00:11:00,480

I'm going to switch to this different

302

00:10:59,040 --> 00:11:04,800

tab on my

303

00:11:00,480 --> 00:11:04,800

browser. The

304

00:11:05,120 --> 00:11:08,240

way to make a Dadaist poem is like really

305

00:11:06,800 --> 00:11:08,959

straightforward you might even call it

306

00:11:08,240 --> 00:11:11,600

algorithmic,

307

00:11:08,959 --> 00:11:12,720

honestly. Interests in dark kind of

308

00:11:11,600 --> 00:11:14,320

outlined it in these

309

00:11:12,720 --> 00:11:16,560

specific steps so I'll just read them

310

00:11:14,320 --> 00:11:19,839

out to you.

311

00:11:16,560 --> 00:11:21,760

Take a newspaper, take a pair of scissors,

312

00:11:19,839 --> 00:11:24,079

choose an article as long as you are

313

00:11:21,760 --> 00:11:27,360

planning to make your poem.

314

00:11:24,079 --> 00:11:29,120

Cut out the article. Then cut out each of

315

00:11:27,360 --> 00:11:33,360

the words that make up this article

316

00:11:29,120 --> 00:11:35,279

and put them in a bag. Shake it gently.

317

00:11:33,360 --> 00:11:37,279

Then take out the scraps one after the

318

00:11:35,279 --> 00:11:40,720

other in the order in which they left

319

00:11:37,279 --> 00:11:42,240

the bag. Copy conscientiously the poem

320

00:11:40,720 --> 00:11:44,800

will be like you,

321

00:11:42,240 --> 00:11:46,720

and here you are a writer infinitely

322

00:11:44,800 --> 00:11:47,760

original and endowed with a sensibility

323

00:11:46,720 --> 00:11:49,279

that is charming

324

00:11:47,760 --> 00:11:51,519

though beyond the understanding of the

325

00:11:49,279 --> 00:11:53,120

poker.

326

00:11:51,519 --> 00:11:54,880

So there are some like really poetic

327

00:11:53,120 --> 00:11:57,279

provocations in here that

328

00:11:54,880 --> 00:11:58,240

are interesting but the instructions for

329

00:11:57,279 --> 00:12:01,200

the workshop

330

00:11:58,240 --> 00:12:01,200

are actually quite simple.

331

00:12:03,279 --> 00:12:06,320

This is my sheet of paper

332

00:12:06,880 --> 00:12:14,160

and I'll just start kind of cutting out

333

00:12:11,040 --> 00:12:14,160

each word that's in there

334

00:12:14,480 --> 00:12:17,600  
beginning with the first one

335

00:12:20,800 --> 00:12:25,920  
which reads introduction.

336

00:12:24,320 --> 00:12:28,079  
And then I'm going to put it to my

337

00:12:25,920 --> 00:12:29,680  
container.

338

00:12:28,079 --> 00:12:32,079  
And then I'm just going to do the same

339

00:12:29,680 --> 00:12:34,160  
thing for

340

00:12:32,079 --> 00:12:37,040  
the rest of the words or as long as I

341

00:12:34,160 --> 00:12:40,480  
want my poem to be.

342

00:12:37,040 --> 00:12:40,480  
Does that make sense?

343

00:12:42,320 --> 00:12:45,839  
I think it'd be okay to take maybe the

344

00:12:43,839 --> 00:12:46,399  
first or these next five to ten minutes

345

00:12:45,839 --> 00:12:48,320

to do that

346

00:12:46,399 --> 00:12:50,240

if you haven't already then, and then

347

00:12:48,320 --> 00:12:53,839

maybe we can come back

348

00:12:50,240 --> 00:12:57,360

after that and see what happens.

349

00:12:53,839 --> 00:12:59,360

350

00:12:57,360 --> 00:13:00,399

Just as a reminder we're going to be

351

00:12:59,360 --> 00:13:03,600

cutting out

352

00:13:00,399 --> 00:13:03,600

words from your sheet of text

353

00:13:04,320 --> 00:13:09,519

and then you'll copy down each word as

354

00:13:07,600 --> 00:13:11,680

you pull them out.

355

00:13:09,519 --> 00:13:13,200

There are two options for copying so

356

00:13:11,680 --> 00:13:15,279

you can either write them down yourself

357

00:13:13,200 --> 00:13:16,720  
and kind of store it on your own desktop

358

00:13:15,279 --> 00:13:21,519  
or something.

359

00:13:16,720 --> 00:13:23,920  
There's also

360

00:13:21,519 --> 00:13:26,320  
this option which I'll share with you

361

00:13:23,920 --> 00:13:26,320  
right now.

362

00:13:31,120 --> 00:13:35,760  
So I just put a link to a Google Doc in

363

00:13:33,920 --> 00:13:37,839  
the Zoom chat

364

00:13:35,760 --> 00:13:39,279  
and if you're interested in having

365

00:13:37,839 --> 00:13:41,360  
your poem be part of this kind of

366

00:13:39,279 --> 00:13:42,800  
collective zine

367

00:13:41,360 --> 00:13:44,399  
Martha it can be as long as you want it

368

00:13:42,800 --> 00:13:46,959



to be there's no

369

00:13:44,399 --> 00:13:48,079

limit or minimum or maximum for your

370

00:13:46,959 --> 00:13:50,720

words it's whatever you're kind of

371

00:13:48,079 --> 00:13:50,720

inclined to make.

372

00:13:54,160 --> 00:13:56,399

So,

373

00:13:58,880 --> 00:14:02,480

are you if you're able to let me know if

374

00:14:00,959 --> 00:14:04,000

you have any issues opening the Google

375

00:14:02,480 --> 00:14:06,240

Doc.

376

00:14:04,000 --> 00:14:06,240

377

00:14:07,040 --> 00:14:10,320

But essentially what we're going to do

378

00:14:08,399 --> 00:14:12,160

is as we cut up this text and we pull

379

00:14:10,320 --> 00:14:13,920

them out of our container

380

00:14:12,160 --> 00:14:17,760  
we'll just copy each word into the

381

00:14:13,920 --> 00:14:21,360  
document as they come up

382

00:14:17,760 --> 00:14:30,399  
and then at the end i'll typeset

383

00:14:21,360 --> 00:14:33,839  
everything into a zine.

384

00:14:30,399 --> 00:14:38,160  
Okay so I think this is going to take

385

00:14:33,839 --> 00:14:39,519  
probably around five to ten minutes

386

00:14:38,160 --> 00:14:45,279  
and we can go ahead and start cutting

387

00:14:39,519 --> 00:14:48,480  
into our sheet of paper

388

00:14:45,279 --> 00:14:48,480  
and collecting all of our different

389

00:14:56,839 --> 00:14:59,839  
words.

390

00:16:07,199 --> 00:16:10,399  
Tristan I think we had a couple of

391

00:16:08,800 --> 00:16:12,639

questions in the chat one from

392

00:16:10,399 --> 00:16:14,639

Linda about does it have to be an

393

00:16:12,639 --> 00:16:16,480

article or just words on the page that

394

00:16:14,639 --> 00:16:18,720

we are attracted to?

395

00:16:16,480 --> 00:16:21,199

And then I think they're also having an

396

00:16:18,720 --> 00:16:24,079

issue opening the Google Doc.

397

00:16:21,199 --> 00:16:24,959

Linda I believe you have to copy the

398

00:16:24,079 --> 00:16:26,959

link

399

00:16:24,959 --> 00:16:28,880

sometimes from Zoom and then try to put

400

00:16:26,959 --> 00:16:30,720

that in a new tab.

401

00:16:28,880 --> 00:16:32,160

But maybe Tristan I see if there's

402

00:16:30,720 --> 00:16:33,120

other people in there so it should be an

403

00:16:32,160 --> 00:16:36,800  
open source

404

00:16:33,120 --> 00:16:38,639  
like a public link.

405

00:16:36,800 --> 00:16:40,079  
Yeah thanks for bringing that up it's

406

00:16:38,639 --> 00:16:43,839  
hard to see the chat

407

00:16:40,079 --> 00:16:46,959  
while you're screen sharing

408

00:16:43,839 --> 00:16:46,959  
there are no

409

00:16:47,279 --> 00:16:51,279  
restrictions I would say for how you

410

00:16:49,360 --> 00:16:54,480  
decide to choose the words

411

00:16:51,279 --> 00:16:56,320  
I would say that if you

412

00:16:54,480 --> 00:16:57,600  
want to be more curated with your output

413

00:16:56,320 --> 00:17:00,399  
then you can just choose words that

414

00:16:57,600 --> 00:17:00,399

you're attracted to.

415

00:17:01,360 --> 00:17:04,959

But it could be fun to I think part of

416

00:17:03,600 --> 00:17:06,400

the fun is seeing

417

00:17:04,959 --> 00:17:08,640

what happens when all of these words get

418

00:17:06,400 --> 00:17:12,160

collaged together

419

00:17:08,640 --> 00:17:13,839

and letting some of that control go.

420

00:17:12,160 --> 00:17:16,240

Martha I noticed that you said you

421

00:17:13,839 --> 00:17:19,600

can't open a Google Doc

422

00:17:16,240 --> 00:17:23,039

let me look

423

00:17:19,600 --> 00:17:23,039

into this and see what's going on.

424

00:17:23,520 --> 00:17:33,200

I also think that

425

00:17:28,880 --> 00:17:36,880

if the Google document isn't working

426

00:17:33,200 --> 00:17:39,360  
then feel free to add your results

427

00:17:36,880 --> 00:17:39,360  
in the,

428

00:17:40,000 --> 00:17:47,840  
sorry in the chat.

429

00:17:43,200 --> 00:17:47,840  
And I can just copy them in from there.

430

00:17:52,960 --> 00:17:58,480  
What else is coming up? Any other

431

00:17:55,600 --> 00:18:00,720  
troubles or concerns or questions?

432

00:17:58,480 --> 00:18:02,320  
Feel free to put them in the chat or if

433

00:18:00,720 --> 00:18:15,840  
you'd like to unmute yourself either way

434

00:18:02,320 --> 00:18:15,840  
it's fine.

435

00:18:18,720 --> 00:18:22,160  
We just had one participant join us so

436

00:18:21,039 --> 00:18:24,400  
for that person

437

00:18:22,160 --> 00:18:26,400

I'm going to copy the link to this

438

00:18:24,400 --> 00:18:28,880

Google Doc that you see on your screen.

439

00:18:26,400 --> 00:18:30,400

What we're currently doing is making

440

00:18:28,880 --> 00:18:31,919

a Dadaist poem and I'm going to copy the

441

00:18:30,400 --> 00:18:32,640

instructions to that as well into the

442

00:18:31,919 --> 00:18:34,080

chat for you.

443

00:18:32,640 --> 00:18:36,480

But if you have any questions feel free

444

00:18:34,080 --> 00:18:36,480

to ask.

445

00:18:41,520 --> 00:18:57,840

Thanks Marissa.

446

00:19:00,320 --> 00:19:11,840

I should have printed this bigger.

447

00:19:36,840 --> 00:19:39,840

448

00:20:11,919 --> 00:20:15,679

Also I think we forgot to mention at the

449

00:20:13,760 --> 00:20:17,039

beginning when you start to add your

450

00:20:15,679 --> 00:20:19,919

poems into the

451

00:20:17,039 --> 00:20:21,039

Google Doc, you can feel free to make

452

00:20:19,919 --> 00:20:23,520

them anonymous,

453

00:20:21,039 --> 00:20:26,640

create a pseudonym or include your name

454

00:20:23,520 --> 00:20:26,640

whatever is your preference.

455

00:20:26,880 --> 00:20:35,840

Yes thank you for adding that.

456

00:21:00,840 --> 00:21:03,840

457

00:21:29,120 --> 00:21:35,440

Okay I'm almost done cutting up my text

458

00:21:33,440 --> 00:21:36,880

and then I'm gonna be adding my poem

459

00:21:35,440 --> 00:21:45,840

into the

460

00:21:36,880 --> 00:21:45,840



document in just a second

461

00:23:34,840 --> 00:23:37,840

okay.

462

00:23:44,480 --> 00:23:49,520

And just a quick time check we're at

463

00:23:47,440 --> 00:23:55,039

1:29.

464

00:23:49,520 --> 00:23:55,039

I think it would be fine to

465

00:23:55,840 --> 00:23:59,919

spend five more minutes adding

466

00:24:00,400 --> 00:24:05,840

our words into the Google Doc or chat.

467

00:24:58,840 --> 00:25:01,840

468

00:25:10,640 --> 00:25:14,000

We just had one more participant join us

469

00:25:12,880 --> 00:25:15,840

so I'm going

470

00:25:14,000 --> 00:25:18,240

to—what we're doing right now is

471

00:25:15,840 --> 00:25:19,200

creating our Dadaist poems. I'm going to

472

00:25:18,240 --> 00:25:21,200  
copy the link

473

00:25:19,200 --> 00:25:23,840  
to the Google Doc that you see

474

00:25:21,200 --> 00:25:26,720  
being populated by participants poems

475

00:25:23,840 --> 00:25:28,400  
and Tristan will be producing a zine

476

00:25:26,720 --> 00:25:29,840  
that will include these poems so if you

477

00:25:28,400 --> 00:25:31,600  
want to be included in that,

478

00:25:29,840 --> 00:25:43,840  
put your poem in the Google Doc, but it's

479

00:25:31,600 --> 00:25:43,840  
not required.

480

00:25:49,440 --> 00:25:52,640  
And I just put that link in the chat

481

00:25:51,039 --> 00:25:57,840  
you'll see the instructions

482

00:25:52,640 --> 00:25:57,840  
are at the beginning of that Google Doc.

483

00:26:44,480 --> 00:26:48,240

Linda I just want to confirm would you

484

00:26:46,480 --> 00:26:49,279

like us to add what you typed in the

485

00:26:48,240 --> 00:26:51,120

chat into the Doc?

486

00:26:49,279 --> 00:26:53,840

And do you want to sign it or keep it

487

00:26:51,120 --> 00:26:53,840

anonymous?

488

00:27:32,559 --> 00:27:37,520

There are no right ways to do this Robin.

489

00:27:40,720 --> 00:27:49,840

That's true.

490

00:27:50,320 --> 00:27:53,120

And I'm going to repeat it again just

491

00:27:51,600 --> 00:27:54,320

because I think one more person joined

492

00:27:53,120 --> 00:27:56,159

us just now. So

493

00:27:54,320 --> 00:27:57,840

I'm going to copy for the person that

494

00:27:56,159 --> 00:28:00,000

just joined us we're just finishing up

495

00:27:57,840 --> 00:28:01,440  
the Dadaist poem and we're copying for

496

00:28:00,000 --> 00:28:03,279  
those of us that want to,

497

00:28:01,440 --> 00:28:04,799  
our poem into the shared Google Doc that

498

00:28:03,279 --> 00:28:07,120  
you see on the screen.

499

00:28:04,799 --> 00:28:08,799  
Tristan after the workshop, is going to

500

00:28:07,120 --> 00:28:10,640  
take all of those poems and put them

501

00:28:08,799 --> 00:28:12,080  
into a document, like a zine

502

00:28:10,640 --> 00:28:13,279  
and that'll be sent out to everyone so

503

00:28:12,080 --> 00:28:15,520  
by putting your poem there you do

504

00:28:13,279 --> 00:28:18,080  
consent to being included in that zine—

505

00:28:15,520 --> 00:28:19,760  
and you can put it there anonymously you

506

00:28:18,080 --> 00:28:22,559

can create a pseudonym or you can sign

507

00:28:19,760 --> 00:28:22,559

it whatever you prefer.

508

00:28:29,600 --> 00:28:37,440

Okay I'm

509

00:28:33,279 --> 00:28:39,919

going to end my poem where it is.

510

00:28:37,440 --> 00:28:42,480

If you're still typing or or just

511

00:28:39,919 --> 00:28:44,480

joining feel free to

512

00:28:42,480 --> 00:28:45,840

continue finishing out your poem until

513

00:28:44,480 --> 00:28:50,720

it gets to a point where it feels

514

00:28:45,840 --> 00:28:50,720

satisfying, but

515

00:28:52,000 --> 00:28:54,960

kind of just starts

516

00:28:57,120 --> 00:29:13,840

preparing to transition.

517

00:29:28,240 --> 00:29:34,320

So my intention was to

518

00:29:31,279 --> 00:29:36,880  
maybe read some of these

519

00:29:34,320 --> 00:29:36,880  
poems

520

00:29:39,360 --> 00:29:47,120  
now but I think it would be

521

00:29:42,640 --> 00:29:50,640  
nice to wait a little bit.

522

00:29:47,120 --> 00:29:52,159  
Or I don't know, Marissa what do you

523

00:29:50,640 --> 00:29:54,399  
think?

524

00:29:52,159 --> 00:29:56,240  
I think if anyone wants to start reading

525

00:29:54,399 --> 00:29:58,640  
them we can go ahead while others are

526

00:29:56,240 --> 00:29:59,919  
finishing up inputting their poems

527

00:29:58,640 --> 00:30:03,039  
I'm just adding

528

00:29:59,919 --> 00:30:04,720  
Linda's into the document right now.

529

00:30:03,039 --> 00:30:06,480

But if anyone wants to volunteer to read

530

00:30:04,720 --> 00:30:09,760

them aloud and also they could read

531

00:30:06,480 --> 00:30:09,760

their own or they could read someone

532

00:30:20,840 --> 00:30:27,679

else's.

533

00:30:23,679 --> 00:30:27,679

Go ahead and choose one to read aloud.

534

00:30:28,200 --> 00:30:31,289

535

00:30:32,880 --> 00:30:37,440

Entering phenomenological the pronounced

536

00:30:36,080 --> 00:30:40,640

blobosphere

537

00:30:37,440 --> 00:30:41,760

irresistible, realize presence everywhere

538

00:30:40,640 --> 00:30:44,880

mysterious

539

00:30:41,760 --> 00:30:48,000

introduction everything blop blop blop

540

00:30:44,880 --> 00:30:50,559

simply more mystique experience a felt

541

00:30:48,000 --> 00:30:53,120  
enigmatic humble attending force

542  
00:30:50,559 --> 00:30:56,480  
inexplicable further perceptions beauty

543  
00:30:53,120 --> 00:30:56,480  
probe assuming you're.

544  
00:30:59,120 --> 00:31:10,720  
That's so funny.

545  
00:31:05,600 --> 00:31:13,519  
I'll read this third one thank you.

546  
00:31:10,720 --> 00:31:15,519  
Ice gantlet recruits India's women

547  
00:31:13,519 --> 00:31:18,720  
vaccine rallies orders to lead

548  
00:31:15,519 --> 00:31:20,960  
shield face catch blue issues elders

549  
00:31:18,720 --> 00:31:24,320  
vaccine far right

550  
00:31:20,960 --> 00:31:27,200  
lions Biden effort front climate means

551  
00:31:24,320 --> 00:31:29,840  
mass a bold join of tractor on.

552  
00:31:27,200 --> 00:31:30,840  
I actually really like that last line it



553

00:31:29,840 --> 00:31:35,679

felt really

554

00:31:30,840 --> 00:31:35,679

lyrical.

555

00:31:36,880 --> 00:31:42,320

I'm going to open up maybe just a few

556

00:31:41,200 --> 00:31:43,760

more minutes in case

557

00:31:42,320 --> 00:31:46,159

or like just one more minute in case

558

00:31:43,760 --> 00:31:48,640

someone is inclined to

559

00:31:46,159 --> 00:31:50,399

read a statement or sorry not a

560

00:31:48,640 --> 00:31:52,880

statement a sentence from one of these

561

00:31:50,399 --> 00:31:52,880

or something.

562

00:31:57,039 --> 00:32:03,519

If not i think it would be

563

00:32:00,480 --> 00:32:07,120

a good time to

564

00:32:03,519 --> 00:32:10,000  
go into the computational parts

565  
00:32:07,120 --> 00:32:10,000  
of this workshop.

566  
00:32:11,279 --> 00:32:15,840  
so i'm going to switch to a different

567  
00:32:12,840 --> 00:32:15,840  
tab.

568  
00:32:17,600 --> 00:32:21,600  
If anyone has issues seeing this just

569  
00:32:19,120 --> 00:32:21,600  
let me know.

570  
00:32:23,519 --> 00:32:29,760  
So, where are we? what are we doing here?

571  
00:32:26,840 --> 00:32:33,279  
This is a

572  
00:32:29,760 --> 00:32:36,480  
Google Colab notebook

573  
00:32:33,279 --> 00:32:38,159  
and it's not really something that

574  
00:32:36,480 --> 00:32:39,440  
Google has like made available or

575  
00:32:38,159 --> 00:32:41,120  
something that's immediately visible if

576

00:32:39,440 --> 00:32:42,880

you have like a Gmail or something,

577

00:32:41,120 --> 00:32:45,919

maybe you use Google Docs or Google

578

00:32:42,880 --> 00:32:48,240

Slides or whatever.

579

00:32:45,919 --> 00:32:49,919

They also put out this service on their

580

00:32:48,240 --> 00:32:51,600

platform where you can

581

00:32:49,919 --> 00:32:53,279

essentially you can write code in the

582

00:32:51,600 --> 00:32:53,679

browser and then you can share it with

583

00:32:53,279 --> 00:32:58,080

people

584

00:32:53,679 --> 00:33:00,799

as if it were Google Docs. And so

585

00:32:58,080 --> 00:33:02,000

this is essentially a notebook in the

586

00:33:00,799 --> 00:33:04,720

browser

587

00:33:02,000 --> 00:33:06,559  
where you can click on lines of code

588  
00:33:04,720 --> 00:33:09,440  
that I've already pre-written

589  
00:33:06,559 --> 00:33:10,000  
and then it runs them for you. And the

590  
00:33:09,440 --> 00:33:14,480  
way that it does

591  
00:33:10,000 --> 00:33:16,399  
that is that it actually connects to a-

592  
00:33:14,480 --> 00:33:18,480  
I'm going to try something a little bit

593  
00:33:16,399 --> 00:33:22,640  
different actually,

594  
00:33:18,480 --> 00:33:24,159  
so when you're on this

595  
00:33:22,640 --> 00:33:26,480  
like when you open up this in your

596  
00:33:24,159 --> 00:33:28,240  
browser

597  
00:33:26,480 --> 00:33:29,760  
over here it'll say connect to a runtime

598  
00:33:28,240 --> 00:33:33,279  
or something,

599

00:33:29,760 --> 00:33:35,840

you click on that and then it'll connect

600

00:33:33,279 --> 00:33:37,840

you to a computer that Google owns.

601

00:33:35,840 --> 00:33:39,360

And that's where it starts to run the

602

00:33:37,840 --> 00:33:42,080

code, and so it's not actually happening

603

00:33:39,360 --> 00:33:42,080

on your computer.

604

00:33:43,760 --> 00:33:49,360

And we're going to be

605

00:33:46,960 --> 00:33:50,159

using this in a specific way so kind of

606

00:33:49,360 --> 00:33:51,760

just want to go through this

607

00:33:50,159 --> 00:33:53,679

introductory text.

608

00:33:51,760 --> 00:33:55,519

This google notebook is using the

609

00:33:53,679 --> 00:33:58,799

Python programming language

610

00:33:55,519 --> 00:34:00,000  
and we're using Colab because

611  
00:33:58,799 --> 00:34:02,000  
it's a really simple way of kind of

612  
00:34:00,000 --> 00:34:03,519  
setting up your own environment to code

613  
00:34:02,000 --> 00:34:04,880  
right away without having to

614  
00:34:03,519 --> 00:34:06,480  
download a bunch of this other stuff

615  
00:34:04,880 --> 00:34:08,399  
that can make things complicated and

616  
00:34:06,480 --> 00:34:11,200  
intimidating.

617  
00:34:08,399 --> 00:34:11,919  
You don't need to know any code, you

618  
00:34:11,200 --> 00:34:14,639  
don't need

619  
00:34:11,919 --> 00:34:15,919  
a Google account to look at, to open this

620  
00:34:14,639 --> 00:34:18,800  
up in your browser.

621  
00:34:15,919 --> 00:34:19,599  
If you do want to run some of the code,

622

00:34:18,800 --> 00:34:21,919

you'll have to log

623

00:34:19,599 --> 00:34:23,040

in to your Google so that's the only

624

00:34:21,919 --> 00:34:26,079

kind of

625

00:34:23,040 --> 00:34:29,359

limitation that you have.

626

00:34:26,079 --> 00:34:31,520

And just a few kind of observations

627

00:34:29,359 --> 00:34:33,040

this part of my practice I'm really

628

00:34:31,520 --> 00:34:36,320

deriving from

629

00:34:33,040 --> 00:34:36,960

an artist Allison Parrish, who is doing a

630

00:34:36,320 --> 00:34:38,720

lot of work

631

00:34:36,960 --> 00:34:40,159

kind of in this discipline with this

632

00:34:38,720 --> 00:34:41,599

process and

633

00:34:40,159 --> 00:34:43,760  
producing a lot of beautiful kind of

634  
00:34:41,599 --> 00:34:47,359  
evocative texts by

635  
00:34:43,760 --> 00:34:51,280  
working with them computationally.

636  
00:34:47,359 --> 00:34:53,119  
The stuff here will transfer and scale

637  
00:34:51,280 --> 00:34:54,639  
so if you find yourself kind of wanting

638  
00:34:53,119 --> 00:34:56,159  
to do more of this

639  
00:34:54,639 --> 00:34:58,240  
like working with language

640  
00:34:56,159 --> 00:35:02,079  
computationally, then you'll see that

641  
00:34:58,240 --> 00:35:04,480  
some of these concepts reappearing again.

642  
00:35:02,079 --> 00:35:05,680  
Python is great we're using it here in

643  
00:35:04,480 --> 00:35:08,640  
this notebook because

644  
00:35:05,680 --> 00:35:10,800  
there's a lot of resources online for



645

00:35:08,640 --> 00:35:13,920

learning how to use Python.

646

00:35:10,800 --> 00:35:16,560

There's also a big community

647

00:35:13,920 --> 00:35:17,920

for Python and that's really essential

648

00:35:16,560 --> 00:35:19,119

because coding is a collaborative

649

00:35:17,920 --> 00:35:22,320

activity.

650

00:35:19,119 --> 00:35:23,599

It's kind of collectively done

651

00:35:22,320 --> 00:35:24,880

and it's really easy to kind of post

652

00:35:23,599 --> 00:35:26,560

questions online and kind of get

653

00:35:24,880 --> 00:35:28,000

responses

654

00:35:26,560 --> 00:35:31,440

to help work through your code and

655

00:35:28,000 --> 00:35:32,560

troubleshoot some ideas that you have.

656

00:35:31,440 --> 00:35:34,640  
And then the last thing which kind of

657  
00:35:32,560 --> 00:35:38,160  
feels more like a disclaimer

658  
00:35:34,640 --> 00:35:40,079  
I really kind of am repulsed by Google,

659  
00:35:38,160 --> 00:35:41,359  
but again this makes it really easy to

660  
00:35:40,079 --> 00:35:44,240  
write and share code

661  
00:35:41,359 --> 00:35:45,839  
with everybody in a way that makes

662  
00:35:44,240 --> 00:35:47,359  
things

663  
00:35:45,839 --> 00:35:48,560  
less intimidating-like otherwise you

664  
00:35:47,359 --> 00:35:50,960  
would have to download all of this

665  
00:35:48,560 --> 00:35:53,760  
specific software to kind of set up your

666  
00:35:50,960 --> 00:35:54,880  
personal laptop or environment to start

667  
00:35:53,760 --> 00:35:57,280  
coding.

668

00:35:54,880 --> 00:36:01,040

With this I can just type code into

669

00:35:57,280 --> 00:36:01,040

the browser and then run it right away.

670

00:36:01,839 --> 00:36:05,760

So those are kind of some of the things

671

00:36:04,960 --> 00:36:08,880

that

672

00:36:05,760 --> 00:36:12,079

we should get out of the way first,

673

00:36:08,880 --> 00:36:14,000

and then one last thing is that I

674

00:36:12,079 --> 00:36:16,800

really hope that nobody feels pressure

675

00:36:14,000 --> 00:36:20,000

to understand all of these concepts

676

00:36:16,800 --> 00:36:23,119

right away. The point here is to

677

00:36:20,000 --> 00:36:25,119

play with code and see what's possible

678

00:36:23,119 --> 00:36:27,839

and not have media mastery over

679

00:36:25,119 --> 00:36:27,839  
everything.

680  
00:36:28,400 --> 00:36:33,760  
So with that being said, let's kind of go

681  
00:36:31,359 --> 00:36:33,760  
into this.

682  
00:36:37,920 --> 00:36:43,119  
The easiest line of code is really just

683  
00:36:40,560 --> 00:36:44,880  
like one line of text.

684  
00:36:43,119 --> 00:36:46,960  
All right and this is what it says, it

685  
00:36:44,880 --> 00:36:50,240  
says print

686  
00:36:46,960 --> 00:36:52,160  
an opening parentheses quotation marks

687  
00:36:50,240 --> 00:36:53,760  
what I'm writing to you goes on and I am

688  
00:36:52,160 --> 00:36:55,599  
bewitched.

689  
00:36:53,760 --> 00:36:57,119  
And then a closing set of quotation

690  
00:36:55,599 --> 00:37:00,480  
marks and then

691

00:36:57,119 --> 00:37:00,480

a right parenthesis.

692

00:37:00,640 --> 00:37:05,119

The way to run code in this notebook is

693

00:37:02,720 --> 00:37:08,800

to just click on the play button,

694

00:37:05,119 --> 00:37:11,520

and then it displays here what happens.

695

00:37:08,800 --> 00:37:12,480

This lineup code has a few different

696

00:37:11,520 --> 00:37:14,079

things going on—

697

00:37:12,480 --> 00:37:16,400

I'm actually going to fix this typo

698

00:37:14,079 --> 00:37:17,760

because it says three but there are four

699

00:37:16,400 --> 00:37:20,640

bullet points.

700

00:37:17,760 --> 00:37:21,839

So there are four parts to this line

701

00:37:20,640 --> 00:37:24,079

of code right?

702

00:37:21,839 --> 00:37:27,920  
This word, print which is kind of telling

703  
00:37:24,079 --> 00:37:27,920  
the computer this is what I want to do.

704  
00:37:28,000 --> 00:37:31,280  
There's a pair of parentheses inside of

705  
00:37:30,640 --> 00:37:32,800  
which

706  
00:37:31,280 --> 00:37:35,280  
there are some text that's being

707  
00:37:32,800 --> 00:37:35,280  
displayed,

708  
00:37:35,440 --> 00:37:39,119  
and you kind of really need all of these

709  
00:37:37,280 --> 00:37:42,720  
components at once

710  
00:37:39,119 --> 00:37:46,160  
in order to execute this line of code.

711  
00:37:42,720 --> 00:37:46,160  
If some of the stuff isn't there,

712  
00:37:47,280 --> 00:37:52,079  
you start to run into errors. So here for

713  
00:37:50,720 --> 00:37:54,640  
example,

714  
00:37:52,079 --> 00:37:55,680  
this is the exact same line except print

715  
00:37:54,640 --> 00:37:58,400  
is all drawn

716  
00:37:55,680 --> 00:38:00,480  
specifically it's kind of missing a T

717  
00:37:58,400 --> 00:38:02,720  
and so I get this error.

718  
00:38:00,480 --> 00:38:05,760  
When you get an error the line of code

719  
00:38:02,720 --> 00:38:08,480  
doesn't run most of the time

720  
00:38:05,760 --> 00:38:10,880  
and then it starts to display what the

721  
00:38:08,480 --> 00:38:14,400  
error is.

722  
00:38:10,880 --> 00:38:19,839  
There are a few more common errors

723  
00:38:14,400 --> 00:38:19,839  
that I put into this notebook for you.

724  
00:38:21,520 --> 00:38:24,960  
And this one doesn't actually have an

725

00:38:23,520 --> 00:38:26,720  
error come up but you can see that it's

726  
00:38:24,960 --> 00:38:30,320  
also not doing anything.

727  
00:38:26,720 --> 00:38:31,680  
So if certain things aren't in place

728  
00:38:30,320 --> 00:38:33,520  
it could lead to some unexpected

729  
00:38:31,680 --> 00:38:36,720  
behaviors.

730  
00:38:33,520 --> 00:38:37,680  
We don't really need to dive into all of

731  
00:38:36,720 --> 00:38:42,720  
these errors,

732  
00:38:37,680 --> 00:38:44,000  
what they are or what they mean

733  
00:38:42,720 --> 00:38:45,040  
but I think it's worth noting them

734  
00:38:44,000 --> 00:38:46,400  
because they do come up as your

735  
00:38:45,040 --> 00:38:49,440  
programming and kind of

736  
00:38:46,400 --> 00:38:50,880  
part of the enjoyment and certainly the



737

00:38:49,440 --> 00:38:52,720

difficulty of coding is

738

00:38:50,880 --> 00:38:55,119

encountering these errors and kind of

739

00:38:52,720 --> 00:38:58,079

seeing what a possible response

740

00:38:55,119 --> 00:38:58,880

will be. These are really easy to fix

741

00:38:58,079 --> 00:39:01,040

right, so

742

00:38:58,880 --> 00:39:02,320

if I just add a T right here so print

743

00:39:01,040 --> 00:39:05,760

isn't misspelled anymore

744

00:39:02,320 --> 00:39:09,440

then it runs properly and this one

745

00:39:05,760 --> 00:39:14,800

is missing a parenthesis

746

00:39:09,440 --> 00:39:17,920

on the right

747

00:39:14,800 --> 00:39:21,359

and it looks like this one

748

00:39:17,920 --> 00:39:21,359  
isn't in quotation marks.

749  
00:39:24,160 --> 00:39:28,079  
So those are all like really really easy

750  
00:39:26,160 --> 00:39:29,440  
fixes for this,

751  
00:39:28,079 --> 00:39:33,760  
and this one just doesn't have anything

752  
00:39:29,440 --> 00:39:33,760  
in it but if I added some text

753  
00:39:34,400 --> 00:39:37,440  
then it works just fine.

754  
00:39:39,680 --> 00:39:45,680  
I'm going to undo some of these.

755  
00:39:49,520 --> 00:39:52,960  
And so I wanted to focus on like this

756  
00:39:51,040 --> 00:39:54,480  
specific command that we're looking at

757  
00:39:52,960 --> 00:39:58,400  
which is called print.

758  
00:39:54,480 --> 00:39:59,200  
Print is a piece of code that you can

759  
00:39:58,400 --> 00:40:02,079  
use

760

00:39:59,200 --> 00:40:02,960  
to display the text that's in

761

00:40:02,079 --> 00:40:05,280  
parentheses

762

00:40:02,960 --> 00:40:07,119  
and so if you click the play button and

763

00:40:05,280 --> 00:40:08,800  
your line of code is print

764

00:40:07,119 --> 00:40:10,160  
and then inside is the witch then it

765

00:40:08,800 --> 00:40:13,200  
displays the witch there,

766

00:40:10,160 --> 00:40:16,720  
you can use it to print out words,

767

00:40:13,200 --> 00:40:16,720  
numbers are also a possibility

768

00:40:17,839 --> 00:40:21,040  
and then you can combine some text also.

769

00:40:20,480 --> 00:40:23,359  
So

770

00:40:21,040 --> 00:40:24,560  
here it's separated into what I'm

771

00:40:23,359 --> 00:40:27,760  
writing to you goes on

772  
00:40:24,560 --> 00:40:30,319  
plus and I'm bewitched and this is the

773  
00:40:27,760 --> 00:40:31,760  
same thing but I'm just adding a number.

774  
00:40:30,319 --> 00:40:33,920  
And this is actually kind of weird

775  
00:40:31,760 --> 00:40:36,240  
because there's no space here

776  
00:40:33,920 --> 00:40:39,839  
and so  
I'll probably just fix that by

777  
00:40:36,240 --> 00:40:39,839  
adding a space right there.

778  
00:40:42,000 --> 00:40:46,079  
I want to share this Google Doc with

779  
00:40:43,280 --> 00:40:47,680  
everyone so that you have an opportunity

780  
00:40:46,079 --> 00:40:52,400  
to

781  
00:40:47,680 --> 00:40:55,440  
go in and

782  
00:40:52,400 --> 00:40:55,440

kind of write your own code.

783

00:40:55,520 --> 00:41:00,560

I'm going to see—

784

00:41:01,280 --> 00:41:05,200

And just a reminder I think we want

785

00:41:03,200 --> 00:41:05,680

everyone to make a copy of the Google

786

00:41:05,200 --> 00:41:09,839

Doc

787

00:41:05,680 --> 00:41:13,040

right? Yeah. Once they get into it.

788

00:41:09,839 --> 00:41:14,640

Yeah, thanks for that and the way to

789

00:41:13,040 --> 00:41:15,359

do that is the same with any other kind

790

00:41:14,640 --> 00:41:18,240

of Google

791

00:41:15,359 --> 00:41:18,800

file, which is you go up to file then

792

00:41:18,240 --> 00:41:22,240

click

793

00:41:18,800 --> 00:41:23,599

save or copy and drive. And what that'll

794

00:41:22,240 --> 00:41:27,200  
end up doing

795

00:41:23,599 --> 00:41:32,319  
is actually–

796

00:41:27,200 --> 00:41:33,839  
have certain security okay–

797

00:41:32,319 --> 00:41:35,760  
and then what that will end up doing is

798

00:41:33,839 --> 00:41:37,200  
saving a copy of this notebook into your

799

00:41:35,760 --> 00:41:38,800  
Google Drive.

800

00:41:37,200 --> 00:41:40,640  
And this is really important because you

801

00:41:38,800 --> 00:41:42,000  
want to be working on your own copy of

802

00:41:40,640 --> 00:41:45,119  
this document.

803

00:41:42,000 --> 00:41:46,960  
You don't want to share or

804

00:41:45,119 --> 00:41:48,319  
you don't want to be working on

805

00:41:46,960 --> 00:41:49,839

something that everyone else is working

806

00:41:48,319 --> 00:41:53,520

on at the same time.

807

00:41:49,839 --> 00:41:53,520

So that's a really easy way to get the

808

00:41:54,319 --> 00:41:58,640

to have like to introduce errors into

809

00:41:56,319 --> 00:42:02,160

everything.

810

00:41:58,640 --> 00:42:05,680

So I'm going to

811

00:42:02,160 --> 00:42:05,680

add this into the

812

00:42:06,000 --> 00:42:08,480

chat.

813

00:42:14,960 --> 00:42:18,319

If you're interested in following

814

00:42:16,560 --> 00:42:22,000

along or running the code

815

00:42:18,319 --> 00:42:22,000

you can go ahead and open that document.

816

00:42:24,960 --> 00:42:28,839

Again make sure to save a copy to your

817  
00:42:27,280 --> 00:42:32,079  
drive and not work on the document

818  
00:42:28,839 --> 00:42:34,160  
directly, and then you may also get a

819  
00:42:32,079 --> 00:42:35,440  
kind of a disclaimer saying that

820  
00:42:34,160 --> 00:42:38,079  
something

821  
00:42:35,440 --> 00:42:38,960  
this notebook wasn't authorized by

822  
00:42:38,079 --> 00:42:40,800  
Google or whatever,

823  
00:42:38,960 --> 00:42:42,000  
are you sure you want to do this and you

824  
00:42:40,800 --> 00:42:43,200  
can go ahead and click agree to that

825  
00:42:42,000 --> 00:42:44,079  
because there's nothing malicious

826  
00:42:43,200 --> 00:42:46,240  
happening

827  
00:42:44,079 --> 00:42:47,119  
in the document or with the code we're

828  
00:42:46,240 --> 00:42:49,839



just

829

00:42:47,119 --> 00:42:49,839

making poems.

830

00:42:56,880 --> 00:43:00,480

I want to pause for a little bit before

831

00:42:59,040 --> 00:43:04,000

I go on and see if

832

00:43:00,480 --> 00:43:05,359

any questions have surfaced, what's

833

00:43:04,000 --> 00:43:08,160

coming up for everyone, if there are any

834

00:43:05,359 --> 00:43:08,160

thoughts or concerns

835

00:43:09,200 --> 00:43:13,839

and you can put them in the chat or

836

00:43:11,040 --> 00:43:13,839

unmute yourself.

837

00:43:20,640 --> 00:43:25,200

Okay if not, I wanted to introduce this

838

00:43:24,560 --> 00:43:27,440

next

839

00:43:25,200 --> 00:43:28,640

concept in programming it's called

840

00:43:27,440 --> 00:43:31,920

Variables.

841

00:43:28,640 --> 00:43:31,920

So Variables are

842

00:43:32,000 --> 00:43:36,640

essentially like containers, right? So if

843

00:43:34,480 --> 00:43:36,640

you

844

00:43:37,760 --> 00:43:41,920

say you type in a word in the code and

845

00:43:40,480 --> 00:43:44,079

then it acts kind of like this

846

00:43:41,920 --> 00:43:46,480

piece of ceramic where you can put

847

00:43:44,079 --> 00:43:48,960

something in it and the computer kind of

848

00:43:46,480 --> 00:43:50,000

understands what it's looking at

849

00:43:48,960 --> 00:43:52,839

like agree

850

00:43:50,000 --> 00:43:54,640

that this container means a certain

851

00:43:52,839 --> 00:43:58,000

things.

852

00:43:54,640 --> 00:44:00,880

How this manifests in the code is that

853

00:43:58,000 --> 00:44:02,079

you basically just decide on a name for

854

00:44:00,880 --> 00:44:05,119

your variable,

855

00:44:02,079 --> 00:44:06,839

so in this case I'm going to say here's

856

00:44:05,119 --> 00:44:10,240

a container. I'm going to call it

857

00:44:06,839 --> 00:44:12,319

subject, and then after that you add an

858

00:44:10,240 --> 00:44:15,520

equal sign

859

00:44:12,319 --> 00:44:18,800

and then the value that you want

860

00:44:15,520 --> 00:44:22,560

the variable to contain in

861

00:44:18,800 --> 00:44:24,319

this cell I have introduced two

862

00:44:22,560 --> 00:44:25,280

different variables one called subject

863

00:44:24,319 --> 00:44:27,040  
and one called predicate,

864

00:44:25,280 --> 00:44:28,560  
so just dividing up the sentence into

865

00:44:27,040 --> 00:44:32,079  
parts of speech.

866

00:44:28,560 --> 00:44:33,599  
And then what ends up happening is

867

00:44:32,079 --> 00:44:36,960  
after you press the play button

868

00:44:33,599 --> 00:44:39,040  
the computer remembers that subject

869

00:44:36,960 --> 00:44:41,040  
means I, and predicate means want to

870

00:44:39,040 --> 00:44:42,240  
paint a rose.

871

00:44:41,040 --> 00:44:43,599  
And what ends up happening is actually

872

00:44:42,240 --> 00:44:44,400  
really powerful because then you can

873

00:44:43,599 --> 00:44:46,640  
kind of

874

00:44:44,400 --> 00:44:48,400

you can write more lines of code where

875

00:44:46,640 --> 00:44:51,839

you

876

00:44:48,400 --> 00:44:56,640

use those variables in place of

877

00:44:51,839 --> 00:45:00,800

typing in like the actual text itself.

878

00:44:56,640 --> 00:45:04,079

So here instead of saying print

879

00:45:00,800 --> 00:45:07,599

print I,

880

00:45:04,079 --> 00:45:10,079

I'm saying print

881

00:45:07,599 --> 00:45:10,079

subject.

882

00:45:11,280 --> 00:45:18,800

And then you can see that

883

00:45:14,400 --> 00:45:20,960

I is still printed out here next to the

884

00:45:18,800 --> 00:45:23,040

cell and that's because we set these two

885

00:45:20,960 --> 00:45:24,480

equal to each other.

886

00:45:23,040 --> 00:45:26,079

Now once you have these variables you

887

00:45:24,480 --> 00:45:28,480

can add them together.

888

00:45:26,079 --> 00:45:29,760

So if I say subject that's predicate,

889

00:45:28,480 --> 00:45:33,359

then it'll add

890

00:45:29,760 --> 00:45:36,560

I with want to paint a rose,

891

00:45:33,359 --> 00:45:36,560

and then prints that out for you.

892

00:45:37,119 --> 00:45:40,880

Just like some quick practices for

893

00:45:38,800 --> 00:45:41,920

variables, generally you want to make

894

00:45:40,880 --> 00:45:44,079

sure that they're short

895

00:45:41,920 --> 00:45:45,280

and descriptive and that's just for

896

00:45:44,079 --> 00:45:47,040

legibility

897

00:45:45,280 --> 00:45:48,480

so that like when you look at this

898

00:45:47,040 --> 00:45:49,920  
code again you understand what's going

899

00:45:48,480 --> 00:45:51,839  
on or like someone else knows what's

900

00:45:49,920 --> 00:45:53,359  
happening.

901

00:45:51,839 --> 00:45:55,040  
It can be hard to figure out kind of

902

00:45:53,359 --> 00:45:56,480  
what you were thinking about

903

00:45:55,040 --> 00:45:58,640  
after the fact if you're coming back to

904

00:45:56,480 --> 00:46:00,400  
this like

905

00:45:58,640 --> 00:46:02,240  
I don't know two years later or

906

00:46:00,400 --> 00:46:02,800  
something and suddenly decide you want

907

00:46:02,240 --> 00:46:05,839  
to

908

00:46:02,800 --> 00:46:07,200  
program.

909

00:46:05,839 --> 00:46:09,280

You can name your variables anything you

910

00:46:07,200 --> 00:46:10,319

want, so this is just me kind of matching

911

00:46:09,280 --> 00:46:12,640

on a keyboard

912

00:46:10,319 --> 00:46:15,760

you know instead of subject equals I, on

913

00:46:12,640 --> 00:46:18,000

if or whatever.

914

00:46:15,760 --> 00:46:19,440

And this works it's fine the computer

915

00:46:18,000 --> 00:46:21,520

understands that,

916

00:46:19,440 --> 00:46:23,040

but again when you come back to this or

917

00:46:21,520 --> 00:46:24,240

if you're looking over the code right

918

00:46:23,040 --> 00:46:26,079

now it's really hard to tell what you're

919

00:46:24,240 --> 00:46:27,520

doing.

920

00:46:26,079 --> 00:46:30,319



So generally you kind of want to stick

921

00:46:27,520 --> 00:46:30,319

to something like that.

922

00:46:31,760 --> 00:46:35,119

Where this concept starts to get really

923

00:46:34,079 --> 00:46:38,640

powerful

924

00:46:35,119 --> 00:46:40,480

is, if you think about variables as a

925

00:46:38,640 --> 00:46:43,119

container

926

00:46:40,480 --> 00:46:46,079

you can hold more than one possibility

927

00:46:43,119 --> 00:46:50,160

inside of a variable.

928

00:46:46,079 --> 00:46:52,000

So here I'm

929

00:46:50,160 --> 00:46:54,319

introducing a new variable I'm calling

930

00:46:52,000 --> 00:46:56,480

it Subjects,

931

00:46:54,319 --> 00:46:57,599

and then I'm saying that Subjects can be

932

00:46:56,480 --> 00:47:00,319  
either I,

933

00:46:57,599 --> 00:47:00,319  
they, or we.

934

00:47:01,839 --> 00:47:08,000  
And what this does is it turns it into a

935

00:47:05,440 --> 00:47:08,000  
a list.

936

00:47:08,800 --> 00:47:13,920  
So if I use the print command again

937

00:47:12,240 --> 00:47:16,480  
and print Subjects then it'll print out

938

00:47:13,920 --> 00:47:19,280  
all three of our options.

939

00:47:16,480 --> 00:47:20,880  
The procedure for this is really easy,

940

00:47:19,280 --> 00:47:24,640  
you basically just have

941

00:47:20,880 --> 00:47:26,319  
all of your values in quotation marks

942

00:47:24,640 --> 00:47:29,680  
and then you add a comma between all of

943

00:47:26,319 --> 00:47:29,680

them except for the last one

944

00:47:30,240 --> 00:47:34,480

and then you add a an opening and

945

00:47:32,720 --> 00:47:36,800

closing

946

00:47:34,480 --> 00:47:39,280

brackets, and just make sure that those

947

00:47:36,800 --> 00:47:42,559

are there because if not then

948

00:47:39,280 --> 00:47:42,559

errors again are introduced.

949

00:47:47,359 --> 00:47:52,559

Here's a new thing, import random.

950

00:47:51,280 --> 00:47:54,640

The import statement is something that

951

00:47:52,559 --> 00:47:56,480

you can do with code, where it brings in

952

00:47:54,640 --> 00:47:58,559

other chunks of code that you could use

953

00:47:56,480 --> 00:47:59,920

in your program.

954

00:47:58,559 --> 00:48:01,420

And this is really great because some

955

00:47:59,920 --> 00:48:03,119  
people have already written

956

00:48:01,420 --> 00:48:04,640

957

00:48:03,119 --> 00:48:05,920  
lines of code that do what you want to

958

00:48:04,640 --> 00:48:08,319  
do and so you don't have to write that

959

00:48:05,920 --> 00:48:08,319  
yourself.

960

00:48:09,839 --> 00:48:15,040  
So we're going to use a function

961

00:48:13,280 --> 00:48:17,119  
from this line of code that we brought

962

00:48:15,040 --> 00:48:20,400  
in or like another command

963

00:48:17,119 --> 00:48:23,280  
called choice, and this lets it

964

00:48:20,400 --> 00:48:25,200  
choose one option from the three that we

965

00:48:23,280 --> 00:48:27,760  
specified.

966

00:48:25,200 --> 00:48:29,680

So if I say random that choice, and then

967

00:48:27,760 --> 00:48:34,160

put our list

968

00:48:29,680 --> 00:48:37,760

our variable in here

969

00:48:34,160 --> 00:48:40,000

and click play, every time

970

00:48:37,760 --> 00:48:42,640

a different option shows up or most of

971

00:48:40,000 --> 00:48:42,640

the time anyway.

972

00:48:43,040 --> 00:48:46,160

And this is really great when you want

973

00:48:45,599 --> 00:48:49,200

to

974

00:48:46,160 --> 00:48:50,720

just like make sentences

975

00:48:49,200 --> 00:48:52,240

really really quickly because then you

976

00:48:50,720 --> 00:48:55,440

can just press play,

977

00:48:52,240 --> 00:48:58,640

and then it just randomly chooses one of

978

00:48:55,440 --> 00:48:58,640  
the words that you specified.

979

00:48:59,200 --> 00:49:02,559  
The syntax for this is just a little bit

980

00:49:01,040 --> 00:49:04,960  
different

981

00:49:02,559 --> 00:49:06,559  
there's you can't say something just

982

00:49:04,960 --> 00:49:10,319  
like print subjects

983

00:49:06,559 --> 00:49:11,760  
like this. If you

984

00:49:10,319 --> 00:49:13,200  
do that an error comes up and it's

985

00:49:11,760 --> 00:49:14,240  
because the computer doesn't know like-

986

00:49:13,200 --> 00:49:15,599  
you haven't agreed that this is

987

00:49:14,240 --> 00:49:16,240  
something that you and the computer can

988

00:49:15,599 --> 00:49:18,640  
do together

989

00:49:16,240 --> 00:49:19,440

pretty much. It only knows about choice

990

00:49:18,640 --> 00:49:21,839

if you

991

00:49:19,440 --> 00:49:22,720

relate it back to the module that we put

992

00:49:21,839 --> 00:49:25,119

in

993

00:49:22,720 --> 00:49:26,480

or to the chunk of code called random,

994

00:49:25,119 --> 00:49:30,319

and the way of doing it that

995

00:49:26,480 --> 00:49:32,640

is just by adding the dot after the name

996

00:49:30,319 --> 00:49:33,520

of a chunk of code that you brought in.

997

00:49:32,640 --> 00:49:36,200

So

998

00:49:33,520 --> 00:49:38,240

instead of print choice subjects, we say

999

00:49:36,200 --> 00:49:44,160

print random dot choice

1000

00:49:38,240 --> 00:49:46,720

dot subjects.

1001

00:49:44,160 --> 00:49:49,280

These next few cells start to kind of

1002

00:49:46,720 --> 00:49:54,480

demonstrate

1003

00:49:49,280 --> 00:49:58,960

how convenient I can make things.

1004

00:49:54,480 --> 00:50:02,079

So I have a different sentence now

1005

00:49:58,960 --> 00:50:03,040

where I'm saying-

1006

00:50:02,079 --> 00:50:04,319

we're going to be working with the

1007

00:50:03,040 --> 00:50:05,359

sentence from before where I want to

1008

00:50:04,319 --> 00:50:09,440

paint a rose,

1009

00:50:05,359 --> 00:50:13,200

but let's replace I with I, There, We

1010

00:50:09,440 --> 00:50:16,559

and then let's also replace a rose with

1011

00:50:13,200 --> 00:50:19,839

lily or hibiscus. So

1012

00:50:16,559 --> 00:50:19,839



I've set up another variable

1013

00:50:20,000 --> 00:50:24,839

-I'm going to change this to flowers

1014

00:50:21,760 --> 00:50:29,920

actually because that seems more

1015

00:50:24,839 --> 00:50:29,920

descriptive and then in the next cell

1016

00:50:30,640 --> 00:50:34,319

you can click this and then it'll

1017

00:50:33,200 --> 00:50:36,960

automatically

1018

00:50:34,319 --> 00:50:38,720

generate these sentences for you. We want

1019

00:50:36,960 --> 00:50:41,839

to paint hibiscus,

1020

00:50:38,720 --> 00:50:43,440

we want to paint a lily, they want to

1021

00:50:41,839 --> 00:50:47,200

paint a lily. So it really just quickly

1022

00:50:43,440 --> 00:50:48,400

replaces these words in your sentence,

1023

00:50:47,200 --> 00:50:50,319

and we can make this more and more

1024

00:50:48,400 --> 00:50:53,040  
complicated.

1025

00:50:50,319 --> 00:50:54,000  
I've changed the verb, I'm going to add a

1026

00:50:53,040 --> 00:50:56,640  
list of verbs to choose

1027

00:50:54,000 --> 00:50:58,000  
from, so instead of eat maybe it's become

1028

00:50:56,640 --> 00:50:59,599  
a rose.

1029

00:50:58,000 --> 00:51:01,119  
We want to become a rose, we want to

1030

00:50:59,599 --> 00:51:01,839  
paint the lily, they want the paint a

1031

00:51:01,119 --> 00:51:04,319  
lily,

1032

00:51:01,839 --> 00:51:06,319  
they want to become a rose. So it's just

1033

00:51:04,319 --> 00:51:08,319  
really quick way

1034

00:51:06,319 --> 00:51:10,720  
of making sentences and writing words

1035

00:51:08,319 --> 00:51:10,720

together

1036

00:51:14,640 --> 00:51:22,960

and then just to recap

1037

00:51:18,640 --> 00:51:25,359

we use the print function to

1038

00:51:22,960 --> 00:51:26,319

put text in it and display that onto the

1039

00:51:25,359 --> 00:51:28,400

screen

1040

00:51:26,319 --> 00:51:30,079

variables are placeholders when you type

1041

00:51:28,400 --> 00:51:33,040

them into your program they get

1042

00:51:30,079 --> 00:51:34,240

replaced with the value that you gave

1043

00:51:33,040 --> 00:51:35,599

them.

1044

00:51:34,240 --> 00:51:37,680

You can make variables have multiple

1045

00:51:35,599 --> 00:51:39,680

values so it's really a container that

1046

00:51:37,680 --> 00:51:40,960

has different possibilities.

1047

00:51:39,680 --> 00:51:42,559

There's a lot of pre-written code

1048

00:51:40,960 --> 00:51:43,839

already that you can bring in using

1049

00:51:42,559 --> 00:51:45,520

imports,

1050

00:51:43,839 --> 00:51:47,119

and the specific one we use is called

1051

00:51:45,520 --> 00:51:51,839

random. So if you bring random and then

1052

00:51:47,119 --> 00:51:51,839

you can perform random calculations.

1053

00:51:53,040 --> 00:51:57,119

I'm going to open up this next section

1054

00:51:55,520 --> 00:51:58,240

called Dada Generator

1055

00:51:57,119 --> 00:52:00,960

and just show you quickly what we're

1056

00:51:58,240 --> 00:52:00,960

going to work towards.

1057

00:52:02,119 --> 00:52:06,640

So there's a lot of

1058

00:52:05,200 --> 00:52:08,480

stuff here that I haven't introduced yet

1059

00:52:06,640 --> 00:52:10,720

but

1060

00:52:08,480 --> 00:52:11,680

let's kind of go through what the

1061

00:52:10,720 --> 00:52:13,839

important bits are.

1062

00:52:11,680 --> 00:52:15,440

So here is my text, this is my paragraph,

1063

00:52:13,839 --> 00:52:16,839

it's an excerpt from Clarice Lispector

1064

00:52:15,440 --> 00:52:20,079

1065

00:52:16,839 --> 00:52:21,680

Água Viva, and this is kind of what I want

1066

00:52:20,079 --> 00:52:24,559

to make into a Dada poem

1067

00:52:21,680 --> 00:52:25,119

right? So what's happening here is I

1068

00:52:24,559 --> 00:52:27,680

define

1069

00:52:25,119 --> 00:52:29,040

or like I tell the computer this is

1070

00:52:27,680 --> 00:52:30,839

the text that I want to work with, this

1071

00:52:29,040 --> 00:52:32,880

is my paragraph

1072

00:52:30,839 --> 00:52:35,040

and like in the earlier part of the

1073

00:52:32,880 --> 00:52:37,920

workshop, I separate each word in that

1074

00:52:35,040 --> 00:52:41,119

paragraph and put it into a list-

1075

00:52:37,920 --> 00:52:41,119

I shuffled the words around

1076

00:52:41,280 --> 00:52:50,160

and then I joined them back together.

1077

00:52:47,200 --> 00:52:50,960

So clicking on this will produce a

1078

00:52:50,160 --> 00:52:53,440

different poem

1079

00:52:50,960 --> 00:52:53,440

each time.

1080

00:52:54,160 --> 00:52:58,000

Space every has already gone new tell of

1081

00:52:57,200 --> 00:53:03,040

god,

1082

00:52:58,000 --> 00:53:06,000

they already in hold also so you two is,

1083

00:53:03,040 --> 00:53:06,480

that's time sees thing passing it of in

1084

00:53:06,000 --> 00:53:09,280

in

1085

00:53:06,480 --> 00:53:10,960

and that gone to because already the eye.

1086

00:53:09,280 --> 00:53:13,040

So it's kind of nonsensical but also

1087

00:53:10,960 --> 00:53:16,559

entertaining at the same time and that's

1088

00:53:13,040 --> 00:53:16,559

like a really enjoyable quality of this.

1089

00:53:17,599 --> 00:53:23,280

Let's go back up and

1090

00:53:20,960 --> 00:53:23,280

really-

1091

00:53:25,280 --> 00:53:30,000

I break that down and what's going on so

1092

00:53:28,400 --> 00:53:31,040

before we using the same kind of chunk

1093

00:53:30,000 --> 00:53:35,440  
of code,

1094

00:53:31,040 --> 00:53:35,440  
let's bring that in again import random,

1095

00:53:36,720 --> 00:53:43,839  
here is the text that we're going to use

1096

00:53:40,000 --> 00:53:43,839  
called paragraph.

1097

00:53:44,000 --> 00:53:47,359  
You may want that to be a little bit

1098

00:53:45,599 --> 00:53:48,559  
more legible

1099

00:53:47,359 --> 00:53:50,480  
in this case you can kind of do

1100

00:53:48,559 --> 00:53:52,240  
something like this where

1101

00:53:50,480 --> 00:53:53,599  
before and after your text you just put

1102

00:53:52,240 --> 00:53:55,200  
three quotation marks,

1103

00:53:53,599 --> 00:53:57,200  
and that that just signals to the

1104

00:53:55,200 --> 00:54:00,640



computer that you're doing

1105

00:53:57,200 --> 00:54:02,400

this kind of line of text where you've

1106

00:54:00,640 --> 00:54:04,800

clicked return at the end of the line or

1107

00:54:02,400 --> 00:54:04,800

something.

1108

00:54:04,880 --> 00:54:11,839

So it takes into account those different

1109

00:54:07,520 --> 00:54:11,839

different formatting issues.

1110

00:54:12,400 --> 00:54:15,359

Now that I've done that I'm just going

1111

00:54:13,599 --> 00:54:16,720

to check to see that this is the text

1112

00:54:15,359 --> 00:54:19,359

that I want to work with by printing the

1113

00:54:16,720 --> 00:54:19,359

variable out

1114

00:54:21,119 --> 00:54:26,240

and now we can turn this whole

1115

00:54:24,160 --> 00:54:27,440

thing into a list of words that we can

1116

00:54:26,240 --> 00:54:30,559  
play with.

1117

00:54:27,440 --> 00:54:32,319  
So before we kind of set up

1118

00:54:30,559 --> 00:54:34,000  
different lists for words that we wanted

1119

00:54:32,319 --> 00:54:35,839  
to replace,

1120

00:54:34,000 --> 00:54:38,240  
in this case we're just going to jumble

1121

00:54:35,839 --> 00:54:40,720  
the entire thing up.

1122

00:54:38,240 --> 00:54:41,520  
And we do that with this line of code

1123

00:54:40,720 --> 00:54:44,960  
right here called

1124

00:54:41,520 --> 00:54:48,400  
paragraph, that split and it's

1125

00:54:44,960 --> 00:54:49,280  
essentially you take your variable that

1126

00:54:48,400 --> 00:54:52,160  
you've

1127

00:54:49,280 --> 00:54:53,839

put your text in and then you say split

1128

00:54:52,160 --> 00:54:56,079

and that separates all of the words

1129

00:54:53,839 --> 00:54:57,520

in your variable, and makes a list out of

1130

00:54:56,079 --> 00:54:59,839

it.

1131

00:54:57,520 --> 00:55:01,280

This is what it looks like, so when I

1132

00:54:59,839 --> 00:55:04,720

print this new variable out—

1133

00:55:01,280 --> 00:55:06,400

print words, let me tell you I'm trying

1134

00:55:04,720 --> 00:55:07,920

to seize the fourth dimension—

1135

00:55:06,400 --> 00:55:10,160

So this is actually the text that we're

1136

00:55:07,920 --> 00:55:10,960

working with and it prints it out in

1137

00:55:10,160 --> 00:55:14,720

order

1138

00:55:10,960 --> 00:55:14,720

but what we want to do is randomize that

1139

00:55:15,280 --> 00:55:20,079

so these next two lines of code will do

1140

00:55:18,839 --> 00:55:23,280

that.

1141

00:55:20,079 --> 00:55:26,559

We're using a different command

1142

00:55:23,280 --> 00:55:29,599

from the random library called shuffle,

1143

00:55:26,559 --> 00:55:33,520

and the way to use it is you just pass

1144

00:55:29,599 --> 00:55:35,119

in your list of words

1145

00:55:33,520 --> 00:55:37,760

and then it just mixes them up

1146

00:55:35,119 --> 00:55:37,760

automatically.

1147

00:55:38,000 --> 00:55:41,280

So now you can see that all of the words

1148

00:55:39,359 --> 00:55:44,319

are in a different order now: breathe, of

1149

00:55:41,280 --> 00:55:46,720

of, the, space, possess. And you can keep

1150

00:55:44,319 --> 00:55:52,160

doing this until it feels like something

1151

00:55:46,720 --> 00:55:54,640

you want to make into a Dadaist poem.

1152

00:55:52,160 --> 00:55:56,400

I'm going to stop here because I like

1153

00:55:54,640 --> 00:56:00,640

that.

1154

00:55:56,400 --> 00:56:04,880

This next cell puts them together

1155

00:56:00,640 --> 00:56:04,880

with a different function called join.

1156

00:56:07,119 --> 00:56:10,640

And then it attaches them together based

1157

00:56:08,720 --> 00:56:13,119

on

1158

00:56:10,640 --> 00:56:13,920

this part right here, so I've kind of

1159

00:56:13,119 --> 00:56:15,359

said,

1160

00:56:13,920 --> 00:56:16,960

put all of these words together with a

1161

00:56:15,359 --> 00:56:18,799

white space between them.

1162  
00:56:16,960 --> 00:56:20,160  
You can change that into whatever

1163  
00:56:18,799 --> 00:56:21,520  
character you want. So here

1164  
00:56:20,160 --> 00:56:23,520  
instead of a white space I'm putting a

1165  
00:56:21,520 --> 00:56:24,720  
hashtag

1166  
00:56:23,520 --> 00:56:27,359  
and then it just puts the hashtag

1167  
00:56:24,720 --> 00:56:27,359  
between words.

1168  
00:56:27,520 --> 00:56:31,839  
I'm going to keep it with the white

1169  
00:56:28,880 --> 00:56:31,839  
space between things.

1170  
00:56:33,200 --> 00:56:36,480  
This next part is just formatting your

1171  
00:56:36,000 --> 00:56:39,440  
text

1172  
00:56:36,480 --> 00:56:39,440  
so that it looks nice.

1173  
00:56:39,839 --> 00:56:43,520

We don't need to know the nitty-gritty

1174

00:56:42,240 --> 00:56:45,839  
of what these

1175

00:56:43,520 --> 00:56:47,280  
lines of code do, but basically what's

1176

00:56:45,839 --> 00:56:51,040  
happening is we're just bringing in

1177

00:56:47,280 --> 00:56:51,040  
a convenient set of tools,

1178

00:56:51,839 --> 00:56:55,119  
and then we can use some of the tools

1179

00:56:54,000 --> 00:56:57,280  
from the code that we brought in—in

1180

00:56:55,119 --> 00:56:59,520  
order to format it so it looks nicely.

1181

00:56:57,280 --> 00:57:00,880  
So what this this does, is it creates a

1182

00:56:59,520 --> 00:57:02,640  
paragraph where each line of the

1183

00:57:00,880 --> 00:57:03,760  
paragraph is no more than 40 characters

1184

00:57:02,640 --> 00:57:07,280  
long.

1185

00:57:03,760 --> 00:57:07,280

You can change this number

1186

00:57:09,040 --> 00:57:14,799

to see kind of visually what you might

1187

00:57:11,520 --> 00:57:14,799

want to be more interested in.

1188

00:57:14,960 --> 00:57:20,000

So changing it to 10 like produces this

1189

00:57:17,440 --> 00:57:24,720

like really terse

1190

00:57:20,000 --> 00:57:24,720

vertical format. I'm going to keep it at

1191

00:57:24,839 --> 00:57:27,839

40.

1192

00:57:30,799 --> 00:57:34,160

In this lab cell I just put all of the

1193

00:57:32,960 --> 00:57:37,680

code together

1194

00:57:34,160 --> 00:57:40,319

so you don't have to go back

1195

00:57:37,680 --> 00:57:41,280

and kind of run each cell individually.

1196

00:57:40,319 --> 00:57:43,040



But at the end,

1197

00:57:41,280 --> 00:57:45,680

you can kind of just click this single

1198

00:57:43,040 --> 00:57:47,200

line or this play button

1199

00:57:45,680 --> 00:57:49,440

replace the text in here with whatever

1200

00:57:47,200 --> 00:57:52,839

you want to work with,

1201

00:57:49,440 --> 00:57:54,720

and then it automatically makes that for

1202

00:57:52,839 --> 00:57:57,760

you.

1203

00:57:54,720 --> 00:57:59,520

And that's

1204

00:57:57,760 --> 00:58:00,880

where we've gotten to. So now you can

1205

00:57:59,520 --> 00:58:02,240

kind of just click on this

1206

00:58:00,880 --> 00:58:04,880

if you open up this notebook in your

1207

00:58:02,240 --> 00:58:08,000

browser, replace any of this

1208  
00:58:04,880 --> 00:58:09,359  
text here with whatever writing you want

1209  
00:58:08,000 --> 00:58:10,880  
to work with

1210  
00:58:09,359 --> 00:58:13,119  
and then it does what we were doing kind

1211  
00:58:10,880 --> 00:58:15,520  
of manually with cutting the words out

1212  
00:58:13,119 --> 00:58:23,520  
and pulling them out one by one,

1213  
00:58:15,520 --> 00:58:25,760  
now you're kind of doing it with code.

1214  
00:58:23,520 --> 00:58:27,520  
I want to show something really optional

1215  
00:58:25,760 --> 00:58:29,440  
before we close out,

1216  
00:58:27,520 --> 00:58:31,680  
but if you ever wanted to kind of work

1217  
00:58:29,440 --> 00:58:32,720  
with a like a text file or something

1218  
00:58:31,680 --> 00:58:34,480  
maybe you've written

1219  
00:58:32,720 --> 00:58:37,760

stuff already or you want to pull a book

1220

00:58:34,480 --> 00:58:40,559

down that you have,

1221

00:58:37,760 --> 00:58:42,160

there's ways of doing that with code. So

1222

00:58:40,559 --> 00:58:44,079

I'm actually downloading a book

1223

00:58:42,160 --> 00:58:45,920

from Project Gutenberg, and it's a

1224

00:58:44,079 --> 00:58:46,880

website that archives

1225

00:58:45,920 --> 00:58:48,720

all kinds of books that are in the

1226

00:58:46,880 --> 00:58:49,520

public domain or have expired

1227

00:58:48,720 --> 00:58:52,960

copyrights.

1228

00:58:49,520 --> 00:58:52,960

All of these are free to work with

1229

00:58:55,760 --> 00:59:00,799

and I'll just click on these

1230

00:58:59,359 --> 00:59:05,280

cells so that you can kind of see what's

1231  
00:59:00,799 --> 00:59:07,680  
going on in here. We download the book

1232  
00:59:05,280 --> 00:59:09,280  
this cell reads it into our program, so

1233  
00:59:07,680 --> 00:59:12,880  
now the computer

1234  
00:59:09,280 --> 00:59:12,880  
knows and remembers the text.

1235  
00:59:13,520 --> 00:59:17,280  
We're going to print out the first 500

1236  
00:59:15,760 --> 00:59:20,559  
words

1237  
00:59:17,280 --> 00:59:23,920  
and so that's what shows up if I go to

1238  
00:59:20,559 --> 00:59:25,280  
the actual file you can see that-

1239  
00:59:23,920 --> 00:59:29,040  
that's

1240  
00:59:25,280 --> 00:59:31,680  
that map's pretty-yeah one to one,

1241  
00:59:29,040 --> 00:59:33,920  
so that's the first 500 words that's all

1242  
00:59:31,680 --> 00:59:35,920

kind of like errata and metadata

1243

00:59:33,920 --> 00:59:37,119  
and licensing it's not actually the

1244

00:59:35,920 --> 00:59:39,200  
narrative

1245

00:59:37,119 --> 00:59:41,599  
so maybe we'll kind of choose a

1246

00:59:39,200 --> 00:59:44,960  
different chunk of the text to use,

1247

00:59:41,599 --> 00:59:47,839  
that's what this next line of code does.

1248

00:59:44,960 --> 00:59:47,839  
Let's see what came out.

1249

00:59:48,640 --> 00:59:53,520  
Yeah that seems workable,

1250

00:59:52,079 --> 00:59:55,200  
and then we'll just repeat the process

1251

00:59:53,520 --> 00:59:56,960  
that we had earlier where we

1252

00:59:55,200 --> 00:59:58,960  
take this chunk of text that we have

1253

00:59:56,960 --> 01:00:02,400  
that's in a variable,

1254

00:59:58,960 --> 01:00:04,960

make a list out of it.

1255

01:00:02,400 --> 01:00:05,760

Let's see what we got in that list. 'The'

1256

01:00:04,960 --> 01:00:08,640

'coming' 'with'

1257

01:00:05,760 --> 01:00:08,640

'Kharsa' 'Their'—

1258

01:00:11,200 --> 01:00:18,240

And then we'll just randomize the order

1259

01:00:15,119 --> 01:00:18,240

and then print it out again.

1260

01:00:19,280 --> 01:00:22,880

So there are a few different

1261

01:00:20,160 --> 01:00:22,880

possibilities.

1262

01:00:24,240 --> 01:00:28,079

So now this is an extension of before

1263

01:00:26,079 --> 01:00:30,000

where now we have

1264

01:00:28,079 --> 01:00:31,440

another data poem generator but it's

1265

01:00:30,000 --> 01:00:33,839

using 100 words from

1266

01:00:31,440 --> 01:00:34,640

a Sci-Fi novel that I downloaded and you

1267

01:00:33,839 --> 01:00:37,680

can replace

1268

01:00:34,640 --> 01:00:39,119

the file with whatever anything that

1269

01:00:37,680 --> 01:00:42,640

you've downloaded or it's like already

1270

01:00:39,119 --> 01:00:44,160

on your laptop or computer.

1271

01:00:42,640 --> 01:00:47,599

The way to do that is to just upload it

1272

01:00:44,160 --> 01:00:50,799

into this column on the left

1273

01:00:47,599 --> 01:00:50,799

and then you would replace the

1274

01:00:51,839 --> 01:00:57,839

line of code here with the name of your

1275

01:00:54,839 --> 01:00:57,839

file.

1276

01:00:58,319 --> 01:01:01,440

Then I put all of this code together at

1277

01:01:00,799 --> 01:01:04,240  
the end

1278

01:01:01,440 --> 01:01:05,599  
so that you can run everything without

1279

01:01:04,240 --> 01:01:06,880  
having to go through each line of the

1280

01:01:05,599 --> 01:01:10,480  
document.

1281

01:01:06,880 --> 01:01:13,280  
So clicking here will download a text

1282

01:01:10,480 --> 01:01:13,280  
and this will just

1283

01:01:14,240 --> 01:01:17,760  
shuffle them and put them back into

1284

01:01:19,119 --> 01:01:25,839  
a random order for you.

1285

01:01:29,839 --> 01:01:34,799  
Okay that was

1286

01:01:35,200 --> 01:01:42,559  
weird and strange, it's kind of tough

1287

01:01:38,960 --> 01:01:45,119  
over Zoom. One last thing

1288

01:01:42,559 --> 01:01:46,559



before we kind of close out, is that I

1289

01:01:45,119 --> 01:01:48,799

have this next section

1290

01:01:46,559 --> 01:01:49,599

where anyone who is interested in kind

1291

01:01:48,799 --> 01:01:52,480

of

1292

01:01:49,599 --> 01:01:54,079

continuing to develop this creative

1293

01:01:52,480 --> 01:01:56,079

relationship with code or thinking about

1294

01:01:54,079 --> 01:01:58,720

software as like a creative material,

1295

01:01:56,079 --> 01:02:00,079

there's a lot of resources online. I mean

1296

01:01:58,720 --> 01:02:01,599

I've listed some of them here that are

1297

01:02:00,079 --> 01:02:03,280

kind of

1298

01:02:01,599 --> 01:02:06,400

some of it is beginner friendly other

1299

01:02:03,280 --> 01:02:08,160

parts are more-

1300

01:02:06,400 --> 01:02:10,000

it's good to have familiarity with code

1301

01:02:08,160 --> 01:02:11,520

or have someone

1302

01:02:10,000 --> 01:02:13,920

who knows code so that they can guide

1303

01:02:11,520 --> 01:02:15,760

you through it.

1304

01:02:13,920 --> 01:02:18,640

And all of that is here. There's some

1305

01:02:15,760 --> 01:02:21,359

like really easy text generation stuff,

1306

01:02:18,640 --> 01:02:22,000

Corpora is really fun it's just a list

1307

01:02:21,359 --> 01:02:25,440

of

1308

01:02:22,000 --> 01:02:27,599

words that you can pull in

1309

01:02:25,440 --> 01:02:27,599

so,

1310

01:02:28,559 --> 01:02:31,760

you can download these files and then

1311

01:02:30,319 --> 01:02:35,839

use them

1312

01:02:31,760 --> 01:02:35,839

in your text generation.

1313

01:02:37,520 --> 01:02:40,720

There's a machine learning thing in here

1314

01:02:38,960 --> 01:02:41,119

too, so if you want to train a computer

1315

01:02:40,720 --> 01:02:44,319

on

1316

01:02:41,119 --> 01:02:46,720

a set of language or like a set of words

1317

01:02:44,319 --> 01:02:50,160

then you can do that with

1318

01:02:46,720 --> 01:02:52,000

this link. Which is another Colab

1319

01:02:50,160 --> 01:02:54,720

notebook.

1320

01:02:52,000 --> 01:02:56,079

This one is a little bit more advanced and

1321

01:02:54,720 --> 01:02:57,680

some errors sometimes come up, it would

1322

01:02:56,079 --> 01:03:00,880

be good to

1323  
01:02:57,680 --> 01:03:02,000  
have someone there to guide you. Another

1324  
01:03:00,880 --> 01:03:03,520  
library

1325  
01:03:02,000 --> 01:03:05,520  
I highly recommend looking into

1326  
01:03:03,520 --> 01:03:08,720  
processing in P5.js.

1327  
01:03:05,520 --> 01:03:09,760  
Both of those platforms are they're

1328  
01:03:08,720 --> 01:03:14,319  
essentially

1329  
01:03:09,760 --> 01:03:16,400  
self-contained starter languages

1330  
01:03:14,319 --> 01:03:17,680  
and what you'll end up noticing is that

1331  
01:03:16,400 --> 01:03:18,720  
as you kind of learn to go through some

1332  
01:03:17,680 --> 01:03:21,920  
of these

1333  
01:03:18,720 --> 01:03:24,799  
tutorials for writing code— on these

1334  
01:03:21,920 --> 01:03:24,799

platforms is that

1335

01:03:26,480 --> 01:03:30,400

you can quickly generate these like

1336

01:03:28,720 --> 01:03:34,240

online kind of

1337

01:03:30,400 --> 01:03:34,240

applications super quickly.

1338

01:03:35,680 --> 01:03:41,520

They also have a really wonderful

1339

01:03:38,720 --> 01:03:44,640

emphasis on community and inclusivity

1340

01:03:41,520 --> 01:03:48,480

kind of spanning race,

1341

01:03:44,640 --> 01:03:51,599

gender, ability, age, and just like

1342

01:03:48,480 --> 01:03:52,480

moving this knowledge outside of the

1343

01:03:51,599 --> 01:03:54,000

institution.

1344

01:03:52,480 --> 01:03:55,440

So that anyone who's kind of interested

1345

01:03:54,000 --> 01:03:55,920

in coding whether or not you're a

1346

01:03:55,440 --> 01:03:59,039  
student,

1347

01:03:55,920 --> 01:04:02,559  
an Artist, computer science major,

1348

01:03:59,039 --> 01:04:05,839  
person at home who wants to learn things.

1349

01:04:02,559 --> 01:04:05,839  
They're really inviting about that.

1350

01:04:07,440 --> 01:04:13,839  
Okay that sounds good, I'm going to

1351

01:04:11,200 --> 01:04:13,839  
stop sharing.

1352

01:04:15,680 --> 01:04:18,720  
And I'm gonna stop the recording at this

1353

01:04:18,319 --> 01:04:22,559  
time

1354

01:04:18,720 --> 01:04:22,559  
so if anyone