

MAY 16, 2018  
7 PM PST / 10 PM EST

RIZ VIRK  
THE ROAD TO KILLER AI

**Ep. 857**

**F2B**  
WITH JIMMY CHURCH



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1  
00:00:12,290 --> 00:00:10,590

[Music]

2  
00:00:16,050 --> 00:00:12,300

[Applause]

3  
00:00:19,100 --> 00:00:16,060

this hope radio for the masses headline

4  
00:00:20,480 --> 00:00:19,110

the birth in July 8 1947

5  
00:00:23,000 --> 00:00:20,490

you're on the Air Force with Rezanov

6  
00:00:26,030 --> 00:00:23,010

start applying there - found and there's

7  
00:00:30,290 --> 00:00:26,040

now in the possession of the RA in would

8  
00:00:33,110 --> 00:00:30,300

change the game changer I occasionally

9  
00:00:36,830 --> 00:00:33,120

think how quickly our differences

10  
00:00:40,630 --> 00:00:36,840

worldwide would vanish if we were facing

11  
00:00:45,940 --> 00:00:40,640

an alien threat from outside this way

12  
00:00:49,150 --> 00:00:45,950

[Music]

13  
00:00:52,240 --> 00:00:49,160

- black with your host Jimmy Church on

14  
00:00:57,549 --> 00:00:52,250  
the game changer radio network and K GRA

15  
00:01:02,700 --> 00:00:59,729  
we need your help to get to the

16  
00:01:06,850 --> 00:01:02,710  
1980

17  
00:01:09,820 --> 00:01:06,860  
[Music]

18  
00:01:11,430 --> 00:01:09,830  
fade to black with jimmy touch on the

19  
00:01:16,750 --> 00:01:11,440  
game change in that one

20  
00:01:21,130 --> 00:01:16,760  
[Music]

21  
00:01:36,440 --> 00:01:21,140  
good evening fade to black the spoke

22  
00:01:42,800 --> 00:01:36,450  
radio for the masses man do I love my

23  
00:01:47,600 --> 00:01:42,810  
job today is Wednesday May 16 2018 135

24  
00:01:51,320 --> 00:01:47,610  
days into the new year just 230 days

25  
00:01:54,320 --> 00:01:51,330  
left we are live from a bunker somewhere

26  
00:01:56,060 --> 00:01:54,330  
in beautiful downtown Burbank California

27  
00:01:59,660 --> 00:01:56,070  
and I would like to welcome everybody

28  
00:02:03,500 --> 00:01:59,670  
listening all around the world and all

29  
00:02:06,320 --> 00:02:03,510  
across the United States hither and

30  
00:02:10,370 --> 00:02:06,330  
thither to and fro back and forth up and

31  
00:02:15,230 --> 00:02:10,380  
down east and west north and south far

32  
00:02:17,449 --> 00:02:15,240  
and near this is fade to black for kjc

33  
00:02:21,920 --> 00:02:17,459  
are the game changer Network and Cave

34  
00:02:25,720 --> 00:02:21,930  
GRA the planets I'm Yours give me Church

35  
00:02:28,580 --> 00:02:25,730  
what is crackin everybody how you doing

36  
00:02:32,810 --> 00:02:28,590  
right before the show tonight I hope

37  
00:02:36,800 --> 00:02:32,820  
he's listening right before the show I

38  
00:02:42,740 --> 00:02:36,810

get I give a text I get a text from race

39

00:02:46,640 --> 00:02:42,750

Hobbs and look where race is he's at

40

00:02:48,229 --> 00:02:46,650

in-n-out burger in Salt Lake City though

41

00:02:53,470 --> 00:02:48,239

they didn't announce all Exedy

42

00:02:57,040 --> 00:02:53,480

but but is his reply was off the

43

00:03:00,560 --> 00:02:57,050

bleeping chain awesome

44

00:03:04,280 --> 00:03:00,570

good for you race if you've never had

45

00:03:07,190 --> 00:03:04,290

in-n-out burger before the first time

46

00:03:09,590 --> 00:03:07,200

you've had it and and I've witnessed it

47

00:03:13,070 --> 00:03:09,600

so many times here's some guest comes in

48

00:03:14,240 --> 00:03:13,080

from out of town pick him up at LAX and

49

00:03:16,370 --> 00:03:14,250

you're pulling out there's in-and-out

50

00:03:19,840 --> 00:03:16,380

burger right there man he's just pull

51  
00:03:22,910 --> 00:03:19,850  
right in and watch their face there's

52  
00:03:27,110 --> 00:03:22,920  
nothing like it because you've never

53  
00:03:28,490 --> 00:03:27,120  
experienced it it is truly and I'm just

54  
00:03:30,050 --> 00:03:28,500  
so thankful we have them here in

55  
00:03:31,940 --> 00:03:30,060  
Southern California it is truly the best

56  
00:03:33,890 --> 00:03:31,950  
hamburger in in the United States

57  
00:03:35,599 --> 00:03:33,900  
there's and there's good stuff out there

58  
00:03:38,690 --> 00:03:35,609  
everybody's proud of their burgers and I

59  
00:03:43,190 --> 00:03:38,700  
get that but there is nothing like an

60  
00:03:45,560 --> 00:03:43,200  
in-and-out burger fries and and their

61  
00:03:48,140 --> 00:03:45,570  
fries it's so weird once they drop in

62  
00:03:51,229 --> 00:03:48,150  
temperature they go cold they're

63  
00:03:53,569 --> 00:03:51,239

inedible but but when they're hot and

64

00:03:56,000 --> 00:03:53,579

they always are but when they're hot you

65

00:03:58,129 --> 00:03:56,010

got to eat them that and that in and out

66

00:04:01,400 --> 00:03:58,139

chocolate shake that's it man that's

67

00:04:03,970 --> 00:04:01,410

where it's at I just wanted to share

68

00:04:08,990 --> 00:04:03,980

that with you guys it really made my day

69

00:04:12,110 --> 00:04:09,000

tonight's very special guests back with

70

00:04:14,409 --> 00:04:12,120

this R is Burke is here we're gonna talk

71

00:04:17,599 --> 00:04:14,419

about killer AI because he's written an

72

00:04:20,629 --> 00:04:17,609

amazing article over at hacker noon

73

00:04:24,080 --> 00:04:20,639

dot-com I posted it over at on stellar

74

00:04:27,890 --> 00:04:24,090

today the link to it and it's called the

75

00:04:32,720 --> 00:04:27,900

road to killer AI ml plus blockchain +

76

00:04:34,550 --> 00:04:32,730

io t + drones equals Skynet it's a

77

00:04:37,610 --> 00:04:34,560

frightening article it's a great article

78

00:04:39,290 --> 00:04:37,620

and we're gonna discuss all of that

79

00:04:40,850 --> 00:04:39,300

tonight with rizz

80

00:04:42,679 --> 00:04:40,860

tomorrow's another fader night with Jon

81

00:04:45,469 --> 00:04:42,689

Rappoport and there's no more fake moon

82

00:04:50,179 --> 00:04:45,479

room live followed by open lines all

83

00:04:53,179 --> 00:04:50,189

night long and now I'm gonna see it's

84

00:04:55,489 --> 00:04:53,189

possible if we can take some phone calls

85

00:04:58,969 --> 00:04:55,499

tonight Riz is on the East Coast so

86

00:05:01,009 --> 00:04:58,979

it'll be getting late for him but

87

00:05:03,409 --> 00:05:01,019

nonetheless I will see if we can squeeze

88

00:05:06,379 --> 00:05:03,419

in some phone calls tonight for rizz

89

00:05:10,100 --> 00:05:06,389

Burke follow us on twitter at J Church

90

00:05:12,469 --> 00:05:10,110

radio Facebook is still alive for the

91

00:05:14,239 --> 00:05:12,479

time being and YouTube you can still

92

00:05:15,649 --> 00:05:14,249

subscribe over there everything is fade

93

00:05:18,019 --> 00:05:15,659

to black to a church radio to be church

94

00:05:20,089 --> 00:05:18,029

radio fade to black blah blah blah go

95

00:05:25,489 --> 00:05:20,099

now you can follow like and subscribe

96

00:05:30,649 --> 00:05:25,499

the sandbox on Twitter is hashtag F to

97

00:05:34,279 --> 00:05:30,659

be F the number two and a B F to be on

98

00:05:37,819 --> 00:05:34,289

Twitter and I say it every night we

99

00:05:43,119 --> 00:05:37,829

don't bite Salt Lake City got an

100

00:05:49,159 --> 00:05:47,839

apparently that is the case unless race

101  
00:05:53,089 --> 00:05:49,169  
is somewhere here in Southern California

102  
00:05:55,669 --> 00:05:53,099  
they opened up after the founders of in

103  
00:05:58,869 --> 00:05:55,679  
and out after the dad passed away the

104  
00:06:01,879 --> 00:05:58,879  
kids you know lost control with

105  
00:06:04,100 --> 00:06:01,889  
in-and-out burger and one of them

106  
00:06:09,529 --> 00:06:04,110  
started to sell franchises so they

107  
00:06:11,119 --> 00:06:09,539  
leaked into Vegas Arizona I think they

108  
00:06:15,499 --> 00:06:11,129  
may have even gotten into New Mexico

109  
00:06:20,899 --> 00:06:15,509  
parts of Texas Oregon and they spread

110  
00:06:23,499 --> 00:06:20,909  
out and then a judge intervened and shut

111  
00:06:25,579 --> 00:06:23,509  
down that one sibling I do believe and

112  
00:06:27,019 --> 00:06:25,589  
yeah I don't know what happened to those

113  
00:06:29,809 --> 00:06:27,029

franchises though I don't know if they

114

00:06:32,600 --> 00:06:29,819

shut him down but there was reasons for

115

00:06:34,369 --> 00:06:32,610

that because all of the in-n-out burgers

116

00:06:38,089 --> 00:06:34,379

here in Southern California they locally

117

00:06:41,839 --> 00:06:38,099

source everything fresh from local

118

00:06:44,119 --> 00:06:41,849

farmers so that was in Ranchers and that

119

00:06:48,290 --> 00:06:44,129

was the secret to their success and they

120

00:06:50,359 --> 00:06:48,300

didn't want to let go of that and there

121

00:06:52,879 --> 00:06:50,369

is other issues involved - you know

122

00:06:54,739 --> 00:06:52,889

sibling rivalry but but there you go

123

00:06:56,030 --> 00:06:54,749

I guess someone opened up there in Salt

124

00:06:58,250 --> 00:06:56,040

Lake so okay

125

00:07:00,200 --> 00:06:58,260

maybe they're franchising again haven't

126

00:07:02,060 --> 00:07:00,210

heard anything about that any questions

127

00:07:05,390 --> 00:07:02,070

or comments during the show tonight you

128

00:07:08,180 --> 00:07:05,400

can use hashtag F to be cute now see I'm

129

00:07:10,310 --> 00:07:08,190

reading the post in Twitter as they are

130

00:07:11,690 --> 00:07:10,320

coming in and as soon and that's what I

131

00:07:15,290 --> 00:07:11,700

just did so if you want to come and

132

00:07:18,020 --> 00:07:15,300

check out all of that hashtag F to B and

133

00:07:20,570 --> 00:07:18,030

then hashtag F to B Q for questions

134

00:07:23,390 --> 00:07:20,580

I keep Twitter live during the show and

135

00:07:26,540 --> 00:07:23,400

the chat rooms too are live in front of

136

00:07:28,310 --> 00:07:26,550

me so good evening everybody and and any

137

00:07:34,430 --> 00:07:28,320

questions comments just just post

138

00:07:38,810 --> 00:07:34,440

alright it happened today let me get to

139

00:07:42,710 --> 00:07:38,820

some breaking news happen today the

140

00:07:45,020 --> 00:07:42,720

Senate voted to pass a measure that

141

00:07:47,990 --> 00:07:45,030

would repeal changes to net neutrality

142

00:07:49,850 --> 00:07:48,000

rules that were recently adopted by the

143

00:07:53,540 --> 00:07:49,860

republican-controlled Federal

144

00:07:55,820 --> 00:07:53,550

Communications Commission now the

145

00:07:58,250 --> 00:07:55,830

measure which was backed by all 49

146

00:07:59,120 --> 00:07:58,260

Democrats and Republican senators Susan

147

00:08:03,020 --> 00:07:59,130

Collins

148

00:08:07,850 --> 00:08:03,030

Lisa Murkowski John Kennedy of Louisiana

149

00:08:09,020 --> 00:08:07,860

it will now be sent to the house and I

150

00:08:09,590 --> 00:08:09,030

don't know where it's gonna go from

151  
00:08:14,420 --> 00:08:09,600  
there

152  
00:08:16,520 --> 00:08:14,430  
okay I don't know let's hope ok this was

153  
00:08:18,230 --> 00:08:16,530  
I didn't think it was gonna pass the

154  
00:08:22,670 --> 00:08:18,240  
Senate I thought it was gonna be a very

155  
00:08:24,980 --> 00:08:22,680  
bleak day today but it made it through I

156  
00:08:28,400 --> 00:08:24,990  
don't know what Trump's gonna do with it

157  
00:08:34,010 --> 00:08:28,410  
president Trump believes in in business

158  
00:08:38,450 --> 00:08:34,020  
and I would think that I would think

159  
00:08:40,580 --> 00:08:38,460  
that he would go ahead and and do what

160  
00:08:44,180 --> 00:08:40,590  
the Senate and the house want to do with

161  
00:08:49,160 --> 00:08:44,190  
this but the people that that put him in

162  
00:08:52,460 --> 00:08:49,170  
office they they do not want to lose

163  
00:08:55,150 --> 00:08:52,470

control of their Internet and I'm being

164

00:08:57,440 --> 00:08:55,160

serious about that all right all those

165

00:08:59,870 --> 00:08:57,450

everybody all those constituents have

166

00:09:03,610 --> 00:08:59,880

been in the White House they're not

167

00:09:08,720 --> 00:09:03,620

gonna want their Netflix throttled back

168

00:09:11,720 --> 00:09:08,730

by NBC so just

169

00:09:13,550 --> 00:09:11,730

man okay so anyway I was relieved I

170

00:09:16,009 --> 00:09:13,560

don't know what the house is gonna do

171

00:09:18,199 --> 00:09:16,019

though I really don't and even if the

172

00:09:22,819 --> 00:09:18,209

House passes it you know Trump can still

173

00:09:24,350 --> 00:09:22,829

veto it so we need to speak up need to

174

00:09:27,220 --> 00:09:24,360

let Trump know man he's got to do the

175

00:09:30,259 --> 00:09:27,230

right thing the Internet is ours

176

00:09:33,650 --> 00:09:30,269

okay all right

177

00:09:36,199 --> 00:09:33,660

I'm stellar it is absolutely beautiful

178

00:09:38,660 --> 00:09:36,209

and if you haven't registered and gone

179

00:09:41,629 --> 00:09:38,670

over and started hanging out with

180

00:09:44,569 --> 00:09:41,639

everybody else apparently except you

181

00:09:46,910 --> 00:09:44,579

just go down stellar dot-com register

182

00:09:50,480 --> 00:09:46,920

you can use my promo code Jimmy and you

183

00:09:54,259 --> 00:09:50,490

do that you'll get an extra 15 tokens

184

00:09:57,650 --> 00:09:54,269

our on stellar tokens that will be there

185

00:10:00,170 --> 00:09:57,660

in your wallet and you'll have 25 tokens

186

00:10:03,980 --> 00:10:00,180

there instead of 10 you get 15 if you

187

00:10:05,750 --> 00:10:03,990

use my promo code yeah free tokens so go

188

00:10:07,579 --> 00:10:05,760

and register you'll be able to use your

189

00:10:10,310 --> 00:10:07,589

tokens in about a month as soon as we

190

00:10:13,579 --> 00:10:10,320

finish up other things that we need to

191

00:10:17,720 --> 00:10:13,589

get through we are now officially in the

192

00:10:18,379 --> 00:10:17,730

beta phase of on stellar it's absolutely

193

00:10:21,579 --> 00:10:18,389

incredible

194

00:10:24,050 --> 00:10:21,589

it runs beautifully it looks beautiful

195

00:10:26,269 --> 00:10:24,060

we have thousands and thousands of

196

00:10:30,470 --> 00:10:26,279

people over there hanging out right now

197

00:10:33,079 --> 00:10:30,480

so go build up your friends list share

198

00:10:35,930 --> 00:10:33,089

the knowledge have fun it's absolutely

199

00:10:37,730 --> 00:10:35,940

incredible and I spend my days over

200

00:10:40,460 --> 00:10:37,740

there now used to spend my social media

201  
00:10:43,579 --> 00:10:40,470  
time over on Facebook and I've just lost

202  
00:10:49,579 --> 00:10:43,589  
interest I don't care anymore I I really

203  
00:10:53,170 --> 00:10:49,589  
really don't care and the the fun the

204  
00:10:57,170 --> 00:10:53,180  
lack of advertising the no data mining

205  
00:10:59,540 --> 00:10:57,180  
all of these things make on stellar

206  
00:11:03,790 --> 00:10:59,550  
great because that changes the user

207  
00:11:08,420 --> 00:11:03,800  
experience but for me more importantly

208  
00:11:13,460 --> 00:11:08,430  
it's it's a platform that is built for

209  
00:11:16,939 --> 00:11:13,470  
this community that you can go and not

210  
00:11:20,360 --> 00:11:16,949  
only share and make friends but we all

211  
00:11:22,460 --> 00:11:20,370  
enjoy social media everybody does and so

212  
00:11:26,000 --> 00:11:22,470  
your social media experience

213  
00:11:28,480 --> 00:11:26,010

the things that you liked about social

214

00:11:32,780 --> 00:11:28,490

media or enjoy about social media today

215

00:11:35,360 --> 00:11:32,790

every all of that is is there but it's

216

00:11:37,250 --> 00:11:35,370

the other features and the way that it's

217

00:11:38,540 --> 00:11:37,260

designed and the additional stuff that

218

00:11:40,910 --> 00:11:38,550

you can do there that you can't do

219

00:11:43,310 --> 00:11:40,920

anywhere else and you start to explore

220

00:11:44,540 --> 00:11:43,320

and poke around and you realize this is

221

00:11:47,810 --> 00:11:44,550

where it's at

222

00:11:51,350 --> 00:11:47,820

it's absolutely incredible so go now on

223

00:11:53,390 --> 00:11:51,360

stellar dot-com get registered use my

224

00:11:56,860 --> 00:11:53,400

referral code Jimmy get those extra

225

00:12:00,380 --> 00:11:56,870

tokens it's based on the blockchain

226

00:12:04,340 --> 00:12:00,390

decentralized token economy and now you

227

00:12:06,320 --> 00:12:04,350

can reward and get rewarded for hanging

228

00:12:08,600 --> 00:12:06,330

out on social media and contributing to

229

00:12:13,580 --> 00:12:08,610

our community it is just a wonderful

230

00:12:15,260 --> 00:12:13,590

place on stellar dot-com and there you

231

00:12:16,880 --> 00:12:15,270

go I've got some other things that I

232

00:12:19,970 --> 00:12:16,890

need to get out of the way because I

233

00:12:21,950 --> 00:12:19,980

have got some news today that I need to

234

00:12:24,320 --> 00:12:21,960

discuss with you that is absolutely

235

00:12:26,420 --> 00:12:24,330

gonna flip you out so I'm gonna save

236

00:12:27,950 --> 00:12:26,430

that I'll get to that just a second

237

00:12:31,870 --> 00:12:27,960

we've got rizz Burke at the bottom of

238

00:12:36,470 --> 00:12:31,880

the hour our next event is coming up in

239

00:12:39,830 --> 00:12:36,480

just two short weeks Oh a blink of an

240

00:12:44,240 --> 00:12:39,840

eye and contact in the desert is here

241

00:12:46,970 --> 00:12:44,250

June 1st through the 4th 2018 Indian

242

00:12:48,260 --> 00:12:46,980

Wells Palm Springs Southern California

243

00:12:51,610 --> 00:12:48,270

you're gonna come and hang out with all

244

00:12:54,410 --> 00:12:51,620

of us at the Renaissance Resort and Spa

245

00:12:57,110 --> 00:12:54,420

programming note Friday night will be

246

00:12:59,150 --> 00:12:57,120

broadcasting fade to black live in front

247

00:13:01,880 --> 00:12:59,160

of a studio audience like we do every

248

00:13:06,050 --> 00:13:01,890

year at contact in the desert Saturday

249

00:13:07,100 --> 00:13:06,060

night is the award ceremony and if you

250

00:13:09,650 --> 00:13:07,110

haven't got your tickets for that's

251  
00:13:11,690 --> 00:13:09,660  
probably already sold out but I'll be

252  
00:13:14,900 --> 00:13:11,700  
doing that Saturday night with George

253  
00:13:18,590 --> 00:13:14,910  
Noory I'm also hosting Saturday night

254  
00:13:21,560 --> 00:13:18,600  
the big magic show spectacular I'm gonna

255  
00:13:24,860 --> 00:13:21,570  
do that on Saturday night Sunday night I

256  
00:13:28,490 --> 00:13:24,870  
will be hosting the closing ceremonies

257  
00:13:32,270 --> 00:13:28,500  
and the closing panel discussion on

258  
00:13:34,400 --> 00:13:32,280  
Sunday night and who we have on that

259  
00:13:36,860 --> 00:13:34,410  
panel and what is gonna go down there

260  
00:13:39,320 --> 00:13:36,870  
plus I've got a few

261  
00:13:40,820 --> 00:13:39,330  
surprise guests that are going to be

262  
00:13:43,610 --> 00:13:40,830  
there for that panel and the closing

263  
00:13:48,050 --> 00:13:43,620

night there everybody's all packed it's

264

00:13:50,829 --> 00:13:48,060

going to be a huge event but that is is

265

00:13:54,019 --> 00:13:50,839

getting planned right now and I was on

266

00:13:55,490 --> 00:13:54,029

working with the good people over at

267

00:13:58,100 --> 00:13:55,500

contact in the desert you know crystal

268

00:14:01,010 --> 00:13:58,110

and Victoria with Rita getting all of

269

00:14:03,320 --> 00:14:01,020

this set up it's gonna be amazing so

270

00:14:04,940 --> 00:14:03,330

come on out you want to hang out in

271

00:14:06,320 --> 00:14:04,950

Southern California don't you you want

272

00:14:07,670 --> 00:14:06,330

to go to Palm Springs don't you want to

273

00:14:09,560 --> 00:14:07,680

hang out the fade are not selling to you

274

00:14:12,350 --> 00:14:09,570

right you want to go into that night

275

00:14:14,450 --> 00:14:12,360

vision right all of those things that

276  
00:14:17,090 --> 00:14:14,460  
you've heard about the fade or knots and

277  
00:14:20,630 --> 00:14:17,100  
Rita and myself I contacted the desert

278  
00:14:21,019 --> 00:14:20,640  
all of its true it's all true the rumors

279  
00:14:23,630 --> 00:14:21,029  
are true

280  
00:14:25,519 --> 00:14:23,640  
we have a good time there so come and

281  
00:14:27,500 --> 00:14:25,529  
hang out with us get your tickets all

282  
00:14:30,260 --> 00:14:27,510  
the info that you need is right there a

283  
00:14:31,870 --> 00:14:30,270  
contact in the desert comm click on the

284  
00:14:35,240 --> 00:14:31,880  
banner of it Jimmy Church radio now

285  
00:14:37,730 --> 00:14:35,250  
don't forget to sign up for our soul

286  
00:14:40,070 --> 00:14:37,740  
tech gathering up at ISA T ranch it's

287  
00:14:41,540 --> 00:14:40,080  
this August 9th through the 12th you

288  
00:14:44,990 --> 00:14:41,550

want to go to Seoul tech gathering

289

00:14:47,900 --> 00:14:45,000

dot-com and we're gonna have Corey good

290

00:14:50,600 --> 00:14:47,910

this year we've got james gilliland

291

00:14:54,290 --> 00:14:50,610

speaking Jason quit Matthew Ryan Makayla

292

00:14:55,220 --> 00:14:54,300

Sheldon Theresa NRA's holly marine Mary

293

00:14:57,970 --> 00:14:55,230

Gabriel

294

00:15:02,480 --> 00:14:57,980

Ashley John lund and Dana Harvey all

295

00:15:04,940 --> 00:15:02,490

teaching you all weekend long and and I

296

00:15:06,860 --> 00:15:04,950

say this but I mean this memories are

297

00:15:09,440 --> 00:15:06,870

made friendships are made that are gonna

298

00:15:11,510 --> 00:15:09,450

last a lifetime and we're gonna be out

299

00:15:13,880 --> 00:15:11,520

there at the field of dreams sky

300

00:15:16,250 --> 00:15:13,890

watching we're gonna be looking for

301  
00:15:18,440 --> 00:15:16,260  
Bigfoot that's gonna happen too by the

302  
00:15:21,140 --> 00:15:18,450  
way and all the other magic that happens

303  
00:15:24,860 --> 00:15:21,150  
up at ESET e it's gonna be absolutely

304  
00:15:26,990 --> 00:15:24,870  
amazing and a great event so please go

305  
00:15:34,910 --> 00:15:27,000  
and get your tickets now or only selling

306  
00:15:38,150 --> 00:15:34,920  
300 also also the the week after that I

307  
00:15:41,900 --> 00:15:38,160  
will be out in Colorado for Cory goods

308  
00:15:43,940 --> 00:15:41,910  
event and so there he go of what busy

309  
00:15:48,110 --> 00:15:43,950  
what a busy summer Rita and I said you

310  
00:15:48,830 --> 00:15:48,120  
know 2018 you know the last few years

311  
00:15:51,530 --> 00:15:48,840  
we've been doing

312  
00:15:53,750 --> 00:15:51,540  
you know eight ten twelve events a year

313  
00:15:56,990 --> 00:15:53,760

and you do that an event every month a

314

00:15:58,610 --> 00:15:57,000

couple events a month and it really

315

00:16:00,110 --> 00:15:58,620

wears you down it's a lot of fun getting

316

00:16:02,690 --> 00:16:00,120

out there but we have to get back into

317

00:16:05,360 --> 00:16:02,700

town and and do another string of shows

318

00:16:07,850 --> 00:16:05,370

and another week and and it's it's it's

319

00:16:11,000 --> 00:16:07,860

crazy what it does to the year the year

320

00:16:14,240 --> 00:16:11,010

just blows by and we decided to slow

321

00:16:19,040 --> 00:16:14,250

down this year well apparently that's

322

00:16:21,230 --> 00:16:19,050

not happening love getting out there and

323

00:16:23,330 --> 00:16:21,240

hanging out with all of you so there you

324

00:16:25,790 --> 00:16:23,340

go we'll see everybody in two weeks of

325

00:16:28,610 --> 00:16:25,800

contact in the desert and then right

326

00:16:30,560 --> 00:16:28,620

after that Sol Tech gathering and then

327

00:16:33,320 --> 00:16:30,570

dimensions of disclosure Quarry Goods

328

00:16:35,960 --> 00:16:33,330

event which is the week after that third

329

00:16:39,260 --> 00:16:35,970

week of August don't forget to subscribe

330

00:16:42,710 --> 00:16:39,270

to our podcast we have over 850 archived

331

00:16:44,300 --> 00:16:42,720

shows custom apps Apple Android just two

332

00:16:46,190 --> 00:16:44,310

dollars a month click on the banner over

333

00:16:48,080 --> 00:16:46,200

to me Church radio.com the podcast

334

00:16:50,840 --> 00:16:48,090

banner you can also become a fader not

335

00:16:53,920 --> 00:16:50,850

Terry just tweeted I just saw this hold

336

00:16:56,630 --> 00:16:53,930

up the new shirts for the bunker cam and

337

00:17:00,980 --> 00:16:56,640

I might be able to pull that off in the

338

00:17:02,660 --> 00:17:00,990

next break and so yeah there's a reason

339

00:17:06,170 --> 00:17:02,670

why I can actually do that tonight Terry

340

00:17:10,550 --> 00:17:06,180

but if you renew your game-changer you

341

00:17:13,760 --> 00:17:10,560

get the new fade to black t-shirts okay

342

00:17:15,140 --> 00:17:13,770

ight now let us know to when you renew

343

00:17:19,300 --> 00:17:15,150

if you don't want the new shirt and you

344

00:17:22,670 --> 00:17:19,310

want the old one let us know but alright

345

00:17:24,920 --> 00:17:22,680

let's see oh hell Jimmy how in the world

346

00:17:28,040 --> 00:17:24,930

can I get you over to my megalithic

347

00:17:33,910 --> 00:17:28,050

sunroom in Colorado it's 25 minutes away

348

00:17:39,380 --> 00:17:37,840

Stacy Stacy you're too warm and kind

349

00:17:42,530 --> 00:17:39,390

alright

350

00:17:44,750 --> 00:17:42,540

where am i I've got to get to this now I

351

00:17:47,300 --> 00:17:44,760

don't forget all of our sponsors here

352

00:17:49,370 --> 00:17:47,310

life change team captain T calm River

353

00:17:52,220 --> 00:17:49,380

moon coffee ancient life oil sacred

354

00:17:54,140 --> 00:17:52,230

skulls new manna food storage and

355

00:17:57,950 --> 00:17:54,150

bearing optics let's get this show

356

00:18:01,710 --> 00:17:57,960

crackin happy birthday to today oh I

357

00:18:05,820 --> 00:18:01,720

didn't I didn't do

358

00:18:08,190 --> 00:18:05,830

that's right I skipped over I was so

359

00:18:08,850 --> 00:18:08,200

busy today because on this day in

360

00:18:16,529 --> 00:18:08,860

history

361

00:18:19,680 --> 00:18:16,539

oh TD 2010 Ronnie James Dio left this

362

00:18:23,430 --> 00:18:19,690

earth to sing for another audience Oh

363

00:18:31,259 --> 00:18:23,440

somebody just posted there you go

364

00:18:32,340 --> 00:18:31,269

and I I'll say this when when I started

365

00:18:34,799 --> 00:18:32,350

going through my thoughts with that

366

00:18:36,570 --> 00:18:34,809

today and and I wrote up a little

367

00:18:40,230 --> 00:18:36,580

article that I posted over and I'm

368

00:18:44,310 --> 00:18:40,240

stellar you can go and and read that and

369

00:18:48,419 --> 00:18:44,320

every year you know on this day every

370

00:18:51,539 --> 00:18:48,429

year you know I just I kind of get

371

00:18:54,840 --> 00:18:51,549

bummed out and and I don't want to be

372

00:18:57,330 --> 00:18:54,850

bummed out because of Ronnie he left way

373

00:19:01,139 --> 00:18:57,340

too early and at the prime of everything

374

00:19:04,830 --> 00:19:01,149

for him but you know you go through and

375

00:19:06,749 --> 00:19:04,840

and you you try to remember some things

376

00:19:08,999 --> 00:19:06,759

and you want to share it with everybody

377

00:19:11,190 --> 00:19:09,009

of course you know in Ronnie's memory

378

00:19:13,799 --> 00:19:11,200

and then you listen to you know some

379

00:19:18,210 --> 00:19:13,809

music which I did today and cranked it

380

00:19:21,240 --> 00:19:18,220

up and and you know it just bums me out

381

00:19:22,980 --> 00:19:21,250

bums me out so I asked everybody today

382

00:19:27,690 --> 00:19:22,990

just go listen to some Ronnie go listen

383

00:19:30,810 --> 00:19:27,700

to some Bo and and he can appreciate you

384

00:19:32,970 --> 00:19:30,820

know his gift because he was truly one

385

00:19:34,860 --> 00:19:32,980

of the greatest if not the greatest rock

386

00:19:37,639 --> 00:19:34,870

singer in the history of everything

387

00:19:42,350 --> 00:19:37,649

Ronnie James Dio on this day in history

388

00:19:48,269 --> 00:19:42,360

2010 passed away from cancer fader fact

389

00:19:51,560 --> 00:19:48,279

the first accountant in history okay now

390

00:19:55,310 --> 00:19:51,570

now I'm gonna say this again the first

391

00:19:58,590 --> 00:19:55,320

accountant in history

392

00:20:02,930 --> 00:19:58,600

his name was Khushi

393

00:20:11,430 --> 00:20:02,940

that's right it was from Mesopotamia and

394

00:20:13,110 --> 00:20:11,440

he lived around 3200 BC and that is a

395

00:20:15,690 --> 00:20:13,120

fader fact

396

00:20:18,360 --> 00:20:15,700

that's a cool that's a cool fact right

397

00:20:19,920 --> 00:20:18,370

there tonight very special guests are

398

00:20:21,060 --> 00:20:19,930

Isberg and got a lump in my throat see

399

00:20:25,140 --> 00:20:21,070

that's why I don't want to talk about

400

00:20:29,070 --> 00:20:25,150

Ronnie right I got a lump it hurts hurts

401  
00:20:30,420 --> 00:20:29,080  
I need James Dio tonight very special

402  
00:20:34,310 --> 00:20:30,430  
guest rizz Burke is here we're going to

403  
00:20:37,470 --> 00:20:34,320  
talk about his article on killer AI and

404  
00:20:39,000 --> 00:20:37,480  
it's an incredible article and I put up

405  
00:20:40,200 --> 00:20:39,010  
the links over at on stellar you can go

406  
00:20:43,310 --> 00:20:40,210  
and check it out there we'll get it up

407  
00:20:44,520 --> 00:20:43,320  
here in in Twitter in just a second and

408  
00:20:47,580 --> 00:20:44,530  
tomorrow night

409  
00:20:49,110 --> 00:20:47,590  
of course is Jon Rappoport Fator night

410  
00:20:51,030 --> 00:20:49,120  
and is no more fake newsroom live

411  
00:20:53,300 --> 00:20:51,040  
followed by open lines all night long

412  
00:20:59,280 --> 00:20:53,310  
okay here we go

413  
00:21:03,960 --> 00:20:59,290

and I have a lump in my throat River

414

00:21:09,600 --> 00:21:03,970

moon coffee it's doc got lump in my

415

00:21:13,920 --> 00:21:09,610

throat here we go in a I got a lump in

416

00:21:17,040 --> 00:21:13,930

my throat people all right I I hope you

417

00:21:23,730 --> 00:21:17,050

understand in a published report from

418

00:21:31,040 --> 00:21:23,740

earlier this week we got this octopus's

419

00:21:33,830 --> 00:21:31,050

came to earth from space as frozen eggs

420

00:21:39,990 --> 00:21:33,840

that's right

421

00:21:42,720 --> 00:21:40,000

the headline read just that octopuses

422

00:21:45,840 --> 00:21:42,730

are aliens which evolved on another

423

00:21:49,350 --> 00:21:45,850

planet before arriving on earth hundreds

424

00:21:53,100 --> 00:21:49,360

of millions of years ago as Kryptos

425

00:21:58,410 --> 00:21:53,110

served eggs via process known as

426  
00:22:02,600 --> 00:21:58,420  
panspermia the report is entitled wait

427  
00:22:06,840 --> 00:22:02,610  
for it cause of Cambrian explosion

428  
00:22:10,500 --> 00:22:06,850  
terrestrial or cosmic which was

429  
00:22:13,610 --> 00:22:10,510  
co-authored by a group of 33 scientists

430  
00:22:17,360 --> 00:22:13,620  
and published in the progress in

431  
00:22:20,750 --> 00:22:17,370  
biophysics and molecular biology journal

432  
00:22:24,600 --> 00:22:20,760  
now some things you just can't make up

433  
00:22:26,760 --> 00:22:24,610  
now listen to me the paper says that the

434  
00:22:30,270 --> 00:22:26,770  
explanation for the sudden flourish

435  
00:22:32,390 --> 00:22:30,280  
of life during the Cambrian era often

436  
00:22:36,240 --> 00:22:32,400  
referred to as the Cambrian explosion

437  
00:22:39,530 --> 00:22:36,250  
lies in the stars as a result of the

438  
00:22:43,620 --> 00:22:39,540

earth being bombarded by clouds of

439

00:22:45,420 --> 00:22:43,630

organic molecules but the scientists go

440

00:22:49,950 --> 00:22:45,430

on to make it even more extraordinary

441

00:22:52,620 --> 00:22:49,960

claim concerning octopuses which seem to

442

00:22:57,150 --> 00:22:52,630

have evolved on earth quite rapidly

443

00:23:00,540 --> 00:22:57,160

something like 270 million years ago 250

444

00:23:05,160 --> 00:23:00,550

million years after the Cambrian

445

00:23:09,540 --> 00:23:05,170

explosion the paper states and I'm

446

00:23:13,370 --> 00:23:09,550

quoting the genome of the octopus shows

447

00:23:18,510 --> 00:23:13,380

a staggering level of complexity with

448

00:23:24,420 --> 00:23:18,520

33,000 protein coding genes more than is

449

00:23:27,020 --> 00:23:24,430

present in us Homo sapiens now I am

450

00:23:32,250 --> 00:23:27,030

going to quote from the paper here and

451

00:23:34,680 --> 00:23:32,260

listen to every word quote it's large

452

00:23:37,650 --> 00:23:34,690

brain and sophisticated nervous system

453

00:23:40,380 --> 00:23:37,660

camera like eyes flexible bodies

454

00:23:43,860 --> 00:23:40,390

instantaneous camouflage via the ability

455

00:23:45,480 --> 00:23:43,870

to switch color and shape are just a few

456

00:23:49,890 --> 00:23:45,490

of the striking features that appear

457

00:23:52,230 --> 00:23:49,900

suddenly on the evolutionary chain the

458

00:23:55,260 --> 00:23:52,240

transformative genes leading to the

459

00:23:59,310 --> 00:23:55,270

consensus consensus ancestral Nautilus

460

00:24:01,620 --> 00:23:59,320

to the common cuttlefish to squid - to

461

00:24:05,070 --> 00:24:01,630

the common are not yet easily to be

462

00:24:09,720 --> 00:24:05,080

found in any pre-existing life-form it

463

00:24:11,940 --> 00:24:09,730

is plausible it is plausible than to

464

00:24:15,210 --> 00:24:11,950

suggest they seem to be borrowed from a

465

00:24:17,550 --> 00:24:15,220

far distant future in terms of

466

00:24:20,930 --> 00:24:17,560

terrestrial evolution or more

467

00:24:24,960 --> 00:24:20,940

realistically from the cosmos at large

468

00:24:27,920 --> 00:24:24,970

one plausible explanation in our view is

469

00:24:31,350 --> 00:24:27,930

that the new genes are likely new

470

00:24:34,710 --> 00:24:31,360

extraterrestrial imports to earth more

471

00:24:38,880 --> 00:24:34,720

plausibly as an already coherent group

472

00:24:39,810 --> 00:24:38,890

of functioning genes within say crypto

473

00:24:42,780 --> 00:24:39,820

krile

474

00:24:48,510 --> 00:24:42,790

served and matrix protected fertilized

475

00:24:52,440 --> 00:24:48,520

octopus eggs thus the possibility that

476  
00:24:55,980 --> 00:24:52,450  
crypto served squid and/or octopus eggs

477  
00:24:58,050 --> 00:24:55,990  
arrived in icy bolide several hundred

478  
00:25:01,070 --> 00:24:58,060  
million years ago and should not be

479  
00:25:03,630 --> 00:25:01,080  
discounted as that would be a cosmic

480  
00:25:08,670 --> 00:25:03,640  
explanation for the octopus sudden

481  
00:25:13,520 --> 00:25:08,680  
emergence on earth circa 270 million

482  
00:25:13,530 --> 00:25:17,480  
make sense really

483  
00:25:24,990 --> 00:25:21,110  
since octopuses are regarded as the most

484  
00:25:29,850 --> 00:25:25,000  
intelligence of all non vertebrates with

485  
00:25:33,330 --> 00:25:29,860  
the highest brain-to-body ratio and then

486  
00:25:36,060 --> 00:25:33,340  
you have to think about this because I

487  
00:25:42,260 --> 00:25:36,070  
did think about that film that came out

488  
00:25:48,050 --> 00:25:42,270

2016 arrival and I remember when when

489

00:25:51,920 --> 00:25:48,060

the ETS came out from the fog they were

490

00:25:54,780 --> 00:25:51,930

giant octopuses weren't they

491

00:25:59,010 --> 00:25:54,790

this is one of the most incredible

492

00:26:03,270 --> 00:25:59,020

published scientific papers reports and

493

00:26:07,020 --> 00:26:03,280

research studies I have ever read and it

494

00:26:11,460 --> 00:26:07,030

is indeed incredible so when somebody

495

00:26:15,540 --> 00:26:11,470

says to you you know when will et get

496

00:26:16,290 --> 00:26:15,550

here you can bring up the octopus think

497

00:26:21,300 --> 00:26:16,300

about it

498

00:26:25,950 --> 00:26:21,310

it's a crazy thought right now have you

499

00:26:29,120 --> 00:26:25,960

ever have you ever seen an octopus open

500

00:26:32,220 --> 00:26:29,130

up a jar you've seen those videos right

501  
00:26:34,940 --> 00:26:32,230  
octopus and a tank they drop a jar in

502  
00:26:38,390 --> 00:26:34,950  
maybe put some food right that octopus

503  
00:26:43,490 --> 00:26:38,400  
unscrews the jar just pops the top off

504  
00:26:48,270 --> 00:26:43,500  
it's like nothing truly truly

505  
00:26:52,800 --> 00:26:48,280  
magnificent so there you go the

506  
00:26:53,620 --> 00:26:52,810  
octopuses appeared complete done unlike

507  
00:26:56,490 --> 00:26:53,630  
anything

508  
00:27:00,760 --> 00:26:56,500  
else in the evolutionary chain allegedly

509  
00:27:05,050 --> 00:27:00,770  
evolutionary I might add and when we

510  
00:27:07,930 --> 00:27:05,060  
think about us here and how we just

511  
00:27:11,680 --> 00:27:07,940  
appeared here a hundred and fifty

512  
00:27:15,250 --> 00:27:11,690  
thousand years ago that we just appeared

513  
00:27:20,680 --> 00:27:15,260

with the correct forehead no hair on our

514

00:27:24,850 --> 00:27:20,690

bodies right the ability to speak think

515

00:27:31,180 --> 00:27:24,860

laugh emotions everything think about

516

00:27:34,990 --> 00:27:31,190

that I had to bring that to your

517

00:27:37,120 --> 00:27:35,000

attention the the report is unbelievable

518

00:27:40,590 --> 00:27:37,130

and I will give it to you here one more

519

00:27:45,210 --> 00:27:40,600

time it's published in the progress in

520

00:27:48,280 --> 00:27:45,220

biophysics and molecular biology journal

521

00:27:51,550 --> 00:27:48,290

it's unbelievable unbelievable

522

00:27:53,800 --> 00:27:51,560

unbelievable to read thirty three

523

00:27:55,360 --> 00:27:53,810

scientists alright tonight

524

00:28:00,310 --> 00:27:55,370

Riz virk is here we're gonna talk about

525

00:28:03,880 --> 00:28:00,320

killer AI tomorrow night is Fator night

526

00:28:05,650 --> 00:28:03,890

my favorite night of the week Jon

527

00:28:08,200 --> 00:28:05,660

Rappoport is good to be here no more

528

00:28:10,870 --> 00:28:08,210

fake newsroom live followed by your

529

00:28:12,600 --> 00:28:10,880

phone calls all night long what a great

530

00:28:15,220 --> 00:28:12,610

week we've had here on fade to black

531

00:28:17,830 --> 00:28:15,230

everything going on with on stellar at

532

00:28:20,650 --> 00:28:17,840

the same time this is a wonderful

533

00:28:22,660 --> 00:28:20,660

wonderful beautiful blue planet that we

534

00:28:26,260 --> 00:28:22,670

live on and I get to do all of this

535

00:28:27,580 --> 00:28:26,270

hanging out with you fade to black our

536

00:28:31,140 --> 00:28:27,590

meals can be Church I'll be right back

537

00:29:02,440 --> 00:28:31,150

with our guests rizz Virg stay with me

538

00:29:05,480 --> 00:29:02,450

[Music]

539

00:29:08,810 --> 00:29:05,490

you're listening to Jimmy Church fade to

540

00:29:12,830 --> 00:29:12,020

[Music]

541

00:29:16,210 --> 00:29:12,840

[Applause]

542

00:29:25,730 --> 00:29:23,450

ADRA radio when you take the beams from

543

00:29:28,310 --> 00:29:25,740

Central America with dashes of

544

00:29:30,680 --> 00:29:28,320

indonesian and african mixed in and then

545

00:29:33,560 --> 00:29:30,690

roasted to the dark side of fade to

546

00:29:36,710 --> 00:29:33,570

black you create the ultimate brew of

547

00:29:40,460 --> 00:29:36,720

Fringe introducing the fade to black

548

00:29:43,070 --> 00:29:40,470

blend from River moon coffee yes River

549

00:29:46,070 --> 00:29:43,080

moons darkest customized roast was

550

00:29:49,070 --> 00:29:46,080

created for the love of fade to black

551  
00:29:51,770 --> 00:29:49,080  
the alchemy of masterful roasting and

552  
00:29:55,340 --> 00:29:51,780  
smoking the beans is in every sip of

553  
00:29:58,310 --> 00:29:55,350  
this full-bodied dark Java I need my

554  
00:30:00,650 --> 00:29:58,320  
coffee dog deep with distinct

555  
00:30:03,380 --> 00:30:00,660  
bittersweet chocolate highlights just

556  
00:30:05,780 --> 00:30:03,390  
like the bunker leaning further into the

557  
00:30:09,080 --> 00:30:05,790  
darkness of the roast is fade to black

558  
00:30:10,730 --> 00:30:09,090  
blend from river moon coffee just click

559  
00:30:14,060 --> 00:30:10,740  
on the banner at Jimmy Church radio.com

560  
00:30:19,090 --> 00:30:14,070  
and use the promo code F to B blend for

561  
00:30:21,680 --> 00:30:19,100  
15% off of your order today gobekli tepe

562  
00:30:23,960 --> 00:30:21,690  
what can I say about the most popular

563  
00:30:26,390 --> 00:30:23,970

tea on the Internet and what a customers

564

00:30:30,590 --> 00:30:26,400

say about life change tea and get the

565

00:30:33,290 --> 00:30:30,600

tea calm a lot but by federal law we get

566

00:30:35,750 --> 00:30:33,300

the tea DICOM cannot make claims to how

567

00:30:37,760 --> 00:30:35,760

this product can enhance your health we

568

00:30:40,490 --> 00:30:37,770

cannot even post our testimonies without

569

00:30:42,980 --> 00:30:40,500

being in compliance so how do we get

570

00:30:46,160 --> 00:30:42,990

past the hump try our products that get

571

00:30:48,770 --> 00:30:46,170

the tea calm and see for yourself you

572

00:30:50,600 --> 00:30:48,780

can send us a testimony but we just

573

00:30:54,530 --> 00:30:50,610

can't post it bumper

574

00:30:56,180 --> 00:30:54,540

our products are GMO free and organic we

575

00:30:56,540 --> 00:30:56,190

pride ourself in being the best we can

576

00:30:59,270 --> 00:30:56,550

be

577

00:31:02,030 --> 00:30:59,280

and we urge you to take charge of your

578

00:31:03,500 --> 00:31:02,040

health we're loving your strong and many

579

00:31:05,450 --> 00:31:03,510

of our customers have shared their

580

00:31:07,070 --> 00:31:05,460

successes with friends and family

581

00:31:10,390 --> 00:31:07,080

protect your colon

582

00:31:12,010 --> 00:31:10,400

log on to get the t.com let's get the

583

00:31:18,669 --> 00:31:12,020

t-dot-com

584

00:31:24,160 --> 00:31:18,679

get the t.com get t.com nine out of ten

585

00:31:29,560 --> 00:31:24,170

geneticists agreed fade to black

586

00:31:33,910 --> 00:31:29,570

is not your father's radio show on the

587

00:31:40,270 --> 00:31:33,920

game changer radio network and k GRA the

588

00:31:41,890 --> 00:31:40,280

planet kg RA this summer tickets and

589

00:31:44,080 --> 00:31:41,900

hotel accommodations to the biggest

590

00:31:46,270 --> 00:31:44,090

conferences autograph books and DVDs

591

00:31:48,310 --> 00:31:46,280

chances to win all-inclusive conference

592

00:31:51,820 --> 00:31:48,320

cruises and private dinners with your

593

00:31:54,549 --> 00:31:51,830

favorite KCRA hosts click the contest to

594

00:31:57,280 --> 00:31:54,559

have it k GRA radio.com for your chance

595

00:31:59,470 --> 00:31:57,290

to win big this summer your contact for

596

00:32:04,040 --> 00:31:59,480

the best alternative talk radio on the

597

00:32:08,660 --> 00:32:05,860

[Music]

598

00:32:10,250 --> 00:32:08,670

hi this is Rob Reiner from anvil and

599

00:32:16,040 --> 00:32:10,260

you're listening to Jimmy Church

600

00:32:26,360 --> 00:32:16,050

radio.com comments and we're listening

601  
00:32:26,370 --> 00:32:34,100

[Music]

602  
00:32:38,940 --> 00:32:36,240

all right welcome back pay the black

603  
00:32:40,370 --> 00:32:38,950

coming up soon to church yeah I'm in a

604  
00:32:42,990 --> 00:32:40,380

great mood

605  
00:32:45,950 --> 00:32:43,000

throat

606  
00:32:48,539 --> 00:32:45,960

show must go on as Ronnie would say

607  
00:32:50,700 --> 00:32:48,549

tonight rizz Burke is with us tomorrow

608  
00:32:53,280 --> 00:32:50,710

night is Fator night open lines all

609  
00:32:56,450 --> 00:32:53,290

night long John Rappaport's gonna be

610  
00:33:02,970 --> 00:32:56,460

here with his no more fake newsroom live

611  
00:33:05,010 --> 00:33:02,980

after Riz posted his article and I think

612  
00:33:07,650 --> 00:33:05,020

it was two weeks ago now I immediately

613  
00:33:09,360 --> 00:33:07,660

called rizz and said what is going on

614

00:33:12,120 --> 00:33:09,370

with this and because you're calling me

615

00:33:16,560 --> 00:33:12,130

to get on the show right I said yes so

616

00:33:19,049 --> 00:33:16,570

first things we we made this special

617

00:33:22,919 --> 00:33:19,059

arrangement tonight to have R is here he

618

00:33:24,780 --> 00:33:22,929

is a successful entrepreneur angel

619

00:33:26,789 --> 00:33:24,790

investor best-selling author video game

620

00:33:29,520 --> 00:33:26,799

industry pioneer independent film

621

00:33:33,690 --> 00:33:29,530

producer he currently runs Bayview labs

622

00:33:35,610 --> 00:33:33,700

and play labs at MIT startup accelerator

623

00:33:38,820 --> 00:33:35,620

held on campus at the Massachusetts

624

00:33:40,440 --> 00:33:38,830

Institute of Technology rizz received a

625

00:33:43,799 --> 00:33:40,450

BS in computer science and engineering

626  
00:33:44,700 --> 00:33:43,809  
from MIT and MS and management from

627  
00:33:47,850 --> 00:33:44,710  
Stanford's

628  
00:33:49,880 --> 00:33:47,860  
GSB Riza's many startups have created

629  
00:33:52,350 --> 00:33:49,890  
products used by thousands of enterprise

630  
00:33:54,750 --> 00:33:52,360  
customers and his games have been

631  
00:33:59,299 --> 00:33:54,760  
downloaded millions of times including

632  
00:34:03,510 --> 00:33:59,309  
tap fish bingo run penny dreadful

633  
00:34:04,980 --> 00:34:03,520  
dimande and grim cards of fate rizz has

634  
00:34:08,220 --> 00:34:04,990  
invested in many startups including

635  
00:34:10,440 --> 00:34:08,230  
Tapjoy telltale games discord funds eel

636  
00:34:13,409 --> 00:34:10,450  
pocket gems moon Express and many others

637  
00:34:16,680 --> 00:34:13,419  
he has also produced many independent

638  
00:34:19,099 --> 00:34:16,690

films including turquoise Rose thrive in

639

00:34:22,349 --> 00:34:19,109

amazing film what on earth will it take

640

00:34:24,930 --> 00:34:22,359

serious and the cult classic Knights of

641

00:34:27,450 --> 00:34:24,940

Badassdom starring the one and only

642

00:34:30,480 --> 00:34:27,460

Peter Dinklage tonight we're gonna

643

00:34:34,050 --> 00:34:30,490

discuss his latest article the road to

644

00:34:39,570 --> 00:34:34,060

killer AI ml plus blockchain plus io t

645

00:34:42,359 --> 00:34:39,580

plus drones equals Skynet his website is

646

00:34:44,070 --> 00:34:42,369

Zen entrepreneur.com the links are over

647

00:34:46,260 --> 00:34:44,080

ahjumma church radio calm like to

648

00:34:47,100 --> 00:34:46,270

welcome back the one and only R is Burke

649

00:34:49,650 --> 00:34:47,110

res goodie

650

00:34:52,980 --> 00:34:49,660

being how are you good evening Jimmy

651  
00:34:59,550 --> 00:34:52,990  
it's great to be back you know R is look

652  
00:35:02,280 --> 00:34:59,560  
MIT Stanford investor Silicon Valley web

653  
00:35:05,220 --> 00:35:02,290  
internet genius I'm totally intimidated

654  
00:35:07,290 --> 00:35:05,230  
by you but you're such a cool guy should

655  
00:35:09,390 --> 00:35:07,300  
I be intimidated because I don't have

656  
00:35:12,600 --> 00:35:09,400  
all of those credentials you know I

657  
00:35:14,700 --> 00:35:12,610  
don't have a CV like that well Jimmy

658  
00:35:17,430 --> 00:35:14,710  
you're a pretty cool guy yourself so I

659  
00:35:19,020 --> 00:35:17,440  
wouldn't be too intimidated especially

660  
00:35:20,520 --> 00:35:19,030  
tonight we're gonna be talking you know

661  
00:35:22,230 --> 00:35:20,530  
a little bit of science and a lot of

662  
00:35:25,590 --> 00:35:22,240  
science fiction meld it together so I

663  
00:35:27,480 --> 00:35:25,600

think fun discussion so what you're

664

00:35:36,360 --> 00:35:27,490

saying is you bring down the discussion

665

00:35:41,100 --> 00:35:36,370

to my level all right you know the I

666

00:35:41,820 --> 00:35:41,110

remember R is maybe was probably two

667

00:35:45,030 --> 00:35:41,830

years ago

668

00:35:46,800 --> 00:35:45,040

and I went down got up in the morning

669

00:35:49,440 --> 00:35:46,810

went down to my coffee machine and I was

670

00:35:54,540 --> 00:35:49,450

staring out the kitchen window as I was

671

00:35:57,780 --> 00:35:54,550

grinding some beans and that morning we

672

00:36:00,720 --> 00:35:57,790

had a traffic accident up the street and

673

00:36:03,120 --> 00:36:00,730

it knocked out a transformer and now

674

00:36:07,100 --> 00:36:03,130

I've got solar power right at the house

675

00:36:09,690 --> 00:36:07,110

so I went to grind the beans and the

676  
00:36:11,340 --> 00:36:09,700  
grinder wasn't running at full speed it

677  
00:36:13,170 --> 00:36:11,350  
was running at half speed right because

678  
00:36:16,710 --> 00:36:13,180  
my house is now running on solar power

679  
00:36:19,020 --> 00:36:16,720  
instead of normal power and and while I

680  
00:36:20,940 --> 00:36:19,030  
was trying to figure that out and then I

681  
00:36:23,520 --> 00:36:20,950  
realized that the power was out then it

682  
00:36:25,640 --> 00:36:23,530  
then it came back on but as I was

683  
00:36:29,790 --> 00:36:25,650  
staring out the window I had this vision

684  
00:36:33,210 --> 00:36:29,800  
what if I woke up in the morning

685  
00:36:37,170 --> 00:36:33,220  
and there was nothing nothing right

686  
00:36:39,510 --> 00:36:37,180  
nothing and where we lost the Internet

687  
00:36:42,330 --> 00:36:39,520  
and we lost electricity we lost

688  
00:36:46,320 --> 00:36:42,340

everything you know now my refrigerator

689

00:36:49,970 --> 00:36:46,330

is is not on my smart refrigerator right

690

00:36:53,760 --> 00:36:49,980

my smart phone is not working the

691

00:36:55,650 --> 00:36:53,770

because the internet is down satellites

692

00:37:00,440 --> 00:36:55,660

are down what would it you know just

693

00:37:03,740 --> 00:37:00,450

some crazy event where that happened

694

00:37:06,290 --> 00:37:03,750

the news I wouldn't be able to get to

695

00:37:09,370 --> 00:37:06,300

find out what happened right because the

696

00:37:11,750 --> 00:37:09,380

news can't get the news to report out

697

00:37:15,080 --> 00:37:11,760

now what do you do you can't go to your

698

00:37:19,240 --> 00:37:15,090

neighbor he doesn't know and the this

699

00:37:22,880 --> 00:37:19,250

would be the beginning of a very bad day

700

00:37:25,970 --> 00:37:22,890

right I mean a bad day and quite

701  
00:37:28,970 --> 00:37:25,980  
possibly if it continues a very bad week

702  
00:37:32,060 --> 00:37:28,980  
and and I laid out this nightmare

703  
00:37:33,620 --> 00:37:32,070  
scenario for everybody because it's

704  
00:37:37,040 --> 00:37:33,630  
something that we really need to think

705  
00:37:40,670 --> 00:37:37,050  
about because the IOT the Internet of

706  
00:37:44,030 --> 00:37:40,680  
Things is everywhere now and it is a

707  
00:37:45,710 --> 00:37:44,040  
huge industry putting the internet into

708  
00:37:49,190 --> 00:37:45,720  
your toothbrush right putting it

709  
00:37:51,530 --> 00:37:49,200  
everywhere and if we continue our

710  
00:37:54,890 --> 00:37:51,540  
dependency on the Internet if anything

711  
00:37:57,980 --> 00:37:54,900  
goes wrong it's gonna go wrong in a bad

712  
00:38:00,590 --> 00:37:57,990  
bad way and I got a lot of feedback

713  
00:38:03,140 --> 00:38:00,600

about that and I turn around and I read

714

00:38:05,750 --> 00:38:03,150

your article and I'm like this is what

715

00:38:08,170 --> 00:38:05,760

I'm on about people you know I'm not the

716

00:38:11,420 --> 00:38:08,180

only one that thinks about the

717

00:38:15,320 --> 00:38:11,430

complexities of the possibilities of

718

00:38:17,480 --> 00:38:15,330

things taking over and if they go bad if

719

00:38:20,720 --> 00:38:17,490

they choose to go bad we're in a bad

720

00:38:22,670 --> 00:38:20,730

situation aren't we well we certainly

721

00:38:24,620 --> 00:38:22,680

could be and I think you know that's

722

00:38:26,180 --> 00:38:24,630

part of what prompted me to write the

723

00:38:29,120 --> 00:38:26,190

article I mean we've gotten more and

724

00:38:30,650 --> 00:38:29,130

more dependent on I mean not just

725

00:38:32,690 --> 00:38:30,660

electronic so I mean we've had

726

00:38:34,880 --> 00:38:32,700

electrical devices for quite some time

727

00:38:37,670 --> 00:38:34,890

right but we over time everything

728

00:38:40,910 --> 00:38:37,680

started to use electricity and slowly

729

00:38:43,820 --> 00:38:40,920

everything is getting connected to the

730

00:38:46,640 --> 00:38:43,830

Internet and to each other and so you

731

00:38:49,690 --> 00:38:46,650

know that raises this possibility of of

732

00:38:51,860 --> 00:38:49,700

cascading failures now on the one hand

733

00:38:53,180 --> 00:38:51,870

you know you've got all these devices

734

00:38:55,010 --> 00:38:53,190

connected and if we were to lose all

735

00:38:57,320 --> 00:38:55,020

electricity it may not be the end of the

736

00:38:58,700 --> 00:38:57,330

world in fact it might you know save us

737

00:39:00,920 --> 00:38:58,710

if we were ever in a disaster situation

738

00:39:03,740 --> 00:39:00,930

where you had an AI that was trying to

739

00:39:06,290 --> 00:39:03,750

take over if we had no electricity then

740

00:39:07,760 --> 00:39:06,300

the AI couldn't run you know one of the

741

00:39:10,130 --> 00:39:07,770

gates I'm going to talk about later in

742

00:39:11,550 --> 00:39:10,140

the show is this idea of an AI that

743

00:39:13,710 --> 00:39:11,560

doesn't have an off so

744

00:39:17,340 --> 00:39:13,720

and that's really you know what we have

745

00:39:18,600 --> 00:39:17,350

to wonder about well you know was during

746

00:39:20,670 --> 00:39:18,610

our last show we were talking about

747

00:39:22,170 --> 00:39:20,680

blockchain some of your listeners might

748

00:39:24,240 --> 00:39:22,180

have have been listening that night and

749

00:39:26,070 --> 00:39:24,250

towards the air and we started talking

750

00:39:27,510 --> 00:39:26,080

about this idea of blockchain and

751

00:39:29,250 --> 00:39:27,520

where's the intersection with AI and

752

00:39:31,080 --> 00:39:29,260

that really got me thinking you know

753

00:39:33,090 --> 00:39:31,090

about these buzzwords that are out there

754

00:39:35,250 --> 00:39:33,100

today which are no longer buzzwords like

755

00:39:36,900 --> 00:39:35,260

you said fridges are smart fridges now

756

00:39:38,730 --> 00:39:36,910

right there are thousands and thousands

757

00:39:41,040 --> 00:39:38,740

of those out there that can actually run

758

00:39:42,630 --> 00:39:41,050

code so now you can run code in many

759

00:39:45,090 --> 00:39:42,640

places that you couldn't before and

760

00:39:47,670 --> 00:39:45,100

that's good because it gives us lots of

761

00:39:50,340 --> 00:39:47,680

convenience but it's bad because we're

762

00:39:53,100 --> 00:39:50,350

suddenly reliant you know on this this

763

00:39:57,150 --> 00:39:53,110

interconnected machine world of you well

764

00:40:00,570 --> 00:39:57,160

I'm gonna get to the terms here in just

765

00:40:02,670 --> 00:40:00,580

a second but when I hear you say that

766

00:40:05,340 --> 00:40:02,680

this is I mean who really needs a smart

767

00:40:07,890 --> 00:40:05,350

refrigerator the answer is nobody right

768

00:40:11,070 --> 00:40:07,900

I mean there is absolutely no need for a

769

00:40:14,640 --> 00:40:11,080

smart refrigerator the reason why people

770

00:40:16,980 --> 00:40:14,650

have them is because you know you're

771

00:40:20,220 --> 00:40:16,990

competing with the Joneses do you

772

00:40:22,980 --> 00:40:20,230

remember when no refrigerators had the

773

00:40:25,290 --> 00:40:22,990

the water dispenser and the ice in the

774

00:40:27,030 --> 00:40:25,300

front right but then those came out I

775

00:40:30,030 --> 00:40:27,040

remember that right now everybody's got

776

00:40:33,780 --> 00:40:30,040

to have one and so I look at it that way

777

00:40:36,420 --> 00:40:33,790

everybody wants to have a 12 by 14 inch

778

00:40:40,320 --> 00:40:36,430

display in front of the refrigerator

779

00:40:44,180 --> 00:40:40,330

they don't need it but that that's part

780

00:40:47,190 --> 00:40:44,190

of the problem nobody needs a you know a

781

00:40:49,740 --> 00:40:47,200

razor or a toothbrush or a bathroom

782

00:40:52,920 --> 00:40:49,750

mirror connected to the Internet you

783

00:40:54,480 --> 00:40:52,930

don't right and eventually that the

784

00:40:57,090 --> 00:40:54,490

manufacturers are only gonna be

785

00:40:59,400 --> 00:40:57,100

producing that dries versions I mean

786

00:41:01,650 --> 00:40:59,410

with like with TVs I mean you take an

787

00:41:03,960 --> 00:41:01,660

old CRT TV and you can't even connect

788

00:41:07,590 --> 00:41:03,970

you know either a DVD player or a

789

00:41:09,120 --> 00:41:07,600

digital signal to the old TVs right so

790

00:41:10,980 --> 00:41:09,130

pretty soon they won't even work anymore

791

00:41:13,080 --> 00:41:10,990

and that's because the manufacturers are

792

00:41:14,550 --> 00:41:13,090

constantly upgrading what's there so so

793

00:41:16,650 --> 00:41:14,560

I hear you and I agree with you that

794

00:41:18,570 --> 00:41:16,660

that's happening yeah and the only way

795

00:41:20,520 --> 00:41:18,580

to get people to buy new bathroom

796

00:41:23,190 --> 00:41:20,530

mirrors that they would never replace in

797

00:41:23,970 --> 00:41:23,200

their house for 50 years has put a chip

798

00:41:27,750 --> 00:41:23,980

in it

799

00:41:30,660 --> 00:41:27,760

now you know and so that all

800

00:41:33,660 --> 00:41:30,670

manufacturers are looking at just that

801

00:41:36,630 --> 00:41:33,670

right how do we get a chip into our

802

00:41:39,480 --> 00:41:36,640

products no matter what the product is

803

00:41:45,660 --> 00:41:39,490

you know to typify it and get it on the

804

00:41:49,140 --> 00:41:45,670

IOT and and I understand manufacturing

805

00:41:51,000 --> 00:41:49,150

and capitalism and and markets I totally

806

00:41:54,030 --> 00:41:51,010

get that and you've got to sell new

807

00:41:58,110 --> 00:41:54,040

product how do you do it well you create

808

00:41:59,100 --> 00:41:58,120

the next thing and certainly the IOT has

809

00:42:03,030 --> 00:41:59,110

done just that

810

00:42:09,450 --> 00:42:03,040

let's go to these terms here let's go

811

00:42:12,300 --> 00:42:09,460

with first off rize's formula is ml plus

812

00:42:14,940 --> 00:42:12,310

blockchain + Alt + drones equals Skynet

813

00:42:19,230 --> 00:42:14,950

let's start at the front and let's go

814

00:42:22,440 --> 00:42:19,240

with ml what is ml okay so ml is

815

00:42:25,020 --> 00:42:22,450

shorthand for machine learning right and

816

00:42:27,240 --> 00:42:25,030

so that's why you know the AI within the

817

00:42:29,400 --> 00:42:27,250

last few years has gotten more

818

00:42:31,890 --> 00:42:29,410

sophisticated than the AI we used to

819

00:42:33,420 --> 00:42:31,900

have you know back in the 80s and 90s I

820

00:42:35,520 --> 00:42:33,430

remember when you know when I was in

821

00:42:38,010 --> 00:42:35,530

high school in the 80s reading about how

822

00:42:41,040 --> 00:42:38,020

the Japanese were going to have AI that

823

00:42:42,870 --> 00:42:41,050

was as good as a human by the end of the

824

00:42:44,580 --> 00:42:42,880

decade that decade that was the 80s

825

00:42:47,100 --> 00:42:44,590

right of course that didn't happen right

826

00:42:49,770 --> 00:42:47,110

so there was a whole first wave of AI

827

00:42:52,050 --> 00:42:49,780

which was based on rules and heuristics

828

00:42:53,730 --> 00:42:52,060

and code and they had to try to figure

829

00:42:56,190 --> 00:42:53,740

out what the rules were and that proved

830

00:42:58,500 --> 00:42:56,200

to be pretty difficult and so you know

831

00:43:00,780 --> 00:42:58,510

machine learning refers to the idea that

832

00:43:04,230 --> 00:43:00,790

the software the computer program can

833

00:43:07,140 --> 00:43:04,240

learn based upon data that we give it

834

00:43:08,640 --> 00:43:07,150

and so you know this started with neural

835

00:43:11,250 --> 00:43:08,650

networks simple neural networks which

836

00:43:12,930 --> 00:43:11,260

we're trying to emulate what happens

837

00:43:15,000 --> 00:43:12,940

inside the brain and you would feed it a

838

00:43:16,830 --> 00:43:15,010

bunch of data like for handwriting you

839

00:43:18,840 --> 00:43:16,840

would feed it a bunch of examples of

840

00:43:23,310 --> 00:43:18,850

people writing the letter T in cursive

841

00:43:26,370 --> 00:43:23,320

or you know in non cursive or or you

842

00:43:28,920 --> 00:43:26,380

know from a typed paper and then the

843

00:43:31,200 --> 00:43:28,930

machine would learn based upon the input

844

00:43:33,690 --> 00:43:31,210

you said this is a T this is an a this

845

00:43:35,190 --> 00:43:33,700

is a B and eventually you know

846

00:43:36,690 --> 00:43:35,200

handwriting recognition got pretty good

847

00:43:37,230 --> 00:43:36,700

I mean it's still not perfect but it's

848

00:43:39,420 --> 00:43:37,240

way better

849

00:43:42,780 --> 00:43:39,430

now than it was before so is this idea

850

00:43:44,430 --> 00:43:42,790

that machines can learn based on data

851

00:43:47,640 --> 00:43:44,440

that you provide it that's really what

852

00:43:50,880 --> 00:43:47,650

ml is all about yeah so when you and I

853

00:43:53,100 --> 00:43:50,890

remember doing that with Ben I forget

854

00:43:54,510 --> 00:43:53,110

those little assistants

855

00:44:00,300 --> 00:43:54,520

what were they called those little

856

00:44:05,780 --> 00:44:00,310

digital assistants like the what were

857

00:44:09,450 --> 00:44:05,790

those called they were Newton was one

858

00:44:11,730 --> 00:44:09,460

how quickly we forget

859

00:44:15,690 --> 00:44:11,740

but anyway where you had to write you

860

00:44:17,930 --> 00:44:15,700

know letters in and it would learn your

861

00:44:19,800 --> 00:44:17,940

handwriting so that's a machine learning

862

00:44:22,410 --> 00:44:19,810

yeah so that was sort of the beginning

863

00:44:25,200 --> 00:44:22,420

of machine learning palm nowadays Palm

864

00:44:27,660 --> 00:44:25,210

Pilot Palm Pilots Palm Pilot that's it

865

00:44:29,190 --> 00:44:27,670

yeah there you go Palm Pilots right it

866

00:44:31,740 --> 00:44:29,200

had different ways to write different

867

00:44:34,200 --> 00:44:31,750

letters so that it would be easy for the

868

00:44:35,640 --> 00:44:34,210

machine to recognize it so now machine

869

00:44:38,730 --> 00:44:35,650

learning is being used for facial

870

00:44:40,800 --> 00:44:38,740

recognition it's being used for

871

00:44:42,720 --> 00:44:40,810

you know self-driving cars we're gonna

872

00:44:45,330 --> 00:44:42,730

talk a lot about that because autonomous

873

00:44:47,280 --> 00:44:45,340

cars are really a precursor to lots of

874

00:44:50,310 --> 00:44:47,290

other autonomous things but they feed

875

00:44:52,530 --> 00:44:50,320

images of the real world backed up by

876  
00:44:54,540 --> 00:44:52,540  
humans so you know when you're on the

877  
00:44:56,160 --> 00:44:54,550  
internet and you get these the CAPTCHAs

878  
00:44:58,530 --> 00:44:56,170  
and they give you these pictures now

879  
00:45:00,120 --> 00:44:58,540  
let's say you know which of these has a

880  
00:45:02,270 --> 00:45:00,130  
car in it which of these pictures or

881  
00:45:05,849 --> 00:45:02,280  
which of these pictures has a sign in it

882  
00:45:07,740 --> 00:45:05,859  
well some of those are data that's

883  
00:45:09,300 --> 00:45:07,750  
already known to them and they just want

884  
00:45:11,849 --> 00:45:09,310  
to verify that you're a human not a

885  
00:45:14,220 --> 00:45:11,859  
robot and some of those are new pictures

886  
00:45:17,340 --> 00:45:14,230  
that they haven't yet classified and

887  
00:45:19,859 --> 00:45:17,350  
they want the humans to say whether it's

888  
00:45:22,020 --> 00:45:19,869

a sign or a car so they can feed it to

889

00:45:23,790 --> 00:45:22,030

the AI and test if the AI is actually

890

00:45:25,740 --> 00:45:23,800

working or the machine learning is

891

00:45:28,470 --> 00:45:25,750

working correctly and that scares the

892

00:45:29,940 --> 00:45:28,480

crap out of me yeah so every time you

893

00:45:31,980 --> 00:45:29,950

fill out one of the hosts like two of

894

00:45:33,570 --> 00:45:31,990

those are like new images and the other

895

00:45:37,590 --> 00:45:33,580

eight are old images and so they're

896

00:45:40,500 --> 00:45:37,600

using you know human feedback as a way

897

00:45:43,349 --> 00:45:40,510

to then feed the AI you know and the

898

00:45:47,250 --> 00:45:43,359

machine learning you know in back at the

899

00:45:49,560 --> 00:45:47,260

house in my garage I probably have three

900

00:45:53,790 --> 00:45:49,570

Palm Pilots

901  
00:45:57,260 --> 00:45:53,800  
just thinking about that man okay now of

902  
00:46:00,180 --> 00:45:57,270  
course now we have the blockchain and

903  
00:46:02,280 --> 00:46:00,190  
give us your short version of what the

904  
00:46:04,790 --> 00:46:02,290  
blockchain is we discussed it a lot here

905  
00:46:07,560 --> 00:46:04,800  
on the show but you would probably

906  
00:46:09,030 --> 00:46:07,570  
simplify it for everybody so they can

907  
00:46:11,460 --> 00:46:09,040  
understand what the blockchain is what

908  
00:46:13,650 --> 00:46:11,470  
is blockchain yeah so for for the

909  
00:46:15,480 --> 00:46:13,660  
purposes of our discussion tonight and

910  
00:46:17,010 --> 00:46:15,490  
we're really concerned about one aspect

911  
00:46:20,100 --> 00:46:17,020  
one or two aspects of the blockchain

912  
00:46:23,370 --> 00:46:20,110  
which is that a blockchain is a series

913  
00:46:26,670 --> 00:46:23,380

of computers around the world that are

914

00:46:29,190 --> 00:46:26,680

all agreeing on something all right so

915

00:46:31,200 --> 00:46:29,200

with Bitcoin they're agreeing on who

916

00:46:33,480 --> 00:46:31,210

transferred the Bitcoin where so the

917

00:46:35,640 --> 00:46:33,490

blockchain is a long list of everybody's

918

00:46:38,040 --> 00:46:35,650

transactions right but it's the

919

00:46:39,390 --> 00:46:38,050

peer-to-peer component that's really

920

00:46:42,510 --> 00:46:39,400

important for our discussion tonight

921

00:46:44,400 --> 00:46:42,520

because there's no one central machine

922

00:46:46,530 --> 00:46:44,410

saying like for example with Bank of

923

00:46:49,050 --> 00:46:46,540

America you have to go to their server

924

00:46:52,170 --> 00:46:49,060

their mainframe keeps track in their

925

00:46:54,930 --> 00:46:52,180

database of the of the official amount

926  
00:46:56,610 --> 00:46:54,940  
in anybody's give an account assuming

927  
00:46:59,370 --> 00:46:56,620  
there's no funny business going on like

928  
00:47:01,650 --> 00:46:59,380  
there was with Wells Fargo but in the

929  
00:47:04,140 --> 00:47:01,660  
blockchain no one machine has that

930  
00:47:06,630 --> 00:47:04,150  
central database so all the machines are

931  
00:47:08,310 --> 00:47:06,640  
kind of processing at the same time now

932  
00:47:09,870 --> 00:47:08,320  
the second thing that they do and this

933  
00:47:13,950 --> 00:47:09,880  
is kind of important for tonight is they

934  
00:47:15,480 --> 00:47:13,960  
they also run code so for example many

935  
00:47:16,770 --> 00:47:15,490  
of your listeners may have heard of not

936  
00:47:18,570 --> 00:47:16,780  
just Bitcoin but aetherium

937  
00:47:20,580 --> 00:47:18,580  
which is the second biggest

938  
00:47:23,280 --> 00:47:20,590

cryptocurrency and blockchain out there

939

00:47:25,230 --> 00:47:23,290

and the reason if there even was

940

00:47:27,900 --> 00:47:25,240

invented that it's inventor of italic

941

00:47:29,160 --> 00:47:27,910

you know he wanted to write more code in

942

00:47:30,390 --> 00:47:29,170

the Bitcoin blockchain and he really

943

00:47:32,250 --> 00:47:30,400

couldn't so he said let's create this

944

00:47:33,600 --> 00:47:32,260

new block Jane called aetherium and I'll

945

00:47:35,940 --> 00:47:33,610

actually write a bunch of code in there

946

00:47:37,500 --> 00:47:35,950

called smart contracts and so that's

947

00:47:39,690 --> 00:47:37,510

what's relevant for our discussion

948

00:47:42,450 --> 00:47:39,700

tonight is the blockchain provides a way

949

00:47:44,670 --> 00:47:42,460

for lots of computers around the world

950

00:47:46,710 --> 00:47:44,680

to be running the exact same code and

951  
00:47:49,860 --> 00:47:46,720  
that's where you can't just shut it off

952  
00:47:54,300 --> 00:47:49,870  
with any one computer very interesting

953  
00:47:55,980 --> 00:47:54,310  
so it's alive yep it's live in a way

954  
00:47:58,200 --> 00:47:55,990  
right yeah as long as there are servers

955  
00:48:00,950 --> 00:47:58,210  
out there that have the software and it

956  
00:48:05,599 --> 00:48:00,960  
also helps for

957  
00:48:07,940 --> 00:48:05,609  
nearly prevents fraud right because the

958  
00:48:10,820 --> 00:48:07,950  
idea is that since you have so many

959  
00:48:12,589 --> 00:48:10,830  
different machines agreeing you know you

960  
00:48:16,790 --> 00:48:12,599  
could hack one of those machines but

961  
00:48:18,260 --> 00:48:16,800  
that won't you know they won't impact

962  
00:48:20,870 --> 00:48:18,270  
the overall process so you'd have to

963  
00:48:24,650 --> 00:48:20,880

hack 51% of the machines you would have

964

00:48:27,349 --> 00:48:24,660

to have 51% and the other before you if

965

00:48:30,040 --> 00:48:27,359

you got through and hacked one the

966

00:48:32,540 --> 00:48:30,050

others would override that quickly

967

00:48:35,570 --> 00:48:32,550

exactly they're constants I checked the

968

00:48:36,950 --> 00:48:35,580

longest chain right even if you hack 51%

969

00:48:38,560 --> 00:48:36,960

you might be able to say okay I'm

970

00:48:41,420 --> 00:48:38,570

creating a new block in the blockchain

971

00:48:43,099 --> 00:48:41,430

here but you're blocking me if you went

972

00:48:44,990 --> 00:48:43,109

back and tried to take somebody else's

973

00:48:46,490 --> 00:48:45,000

Bitcoin long ago you'd have to catch up

974

00:48:48,200 --> 00:48:46,500

because the chain has already been

975

00:48:49,609 --> 00:48:48,210

processed by all these computers along

976

00:48:51,620 --> 00:48:49,619

the way so it is possible to hack if

977

00:48:53,599 --> 00:48:51,630

it's very difficult it is it is and

978

00:48:56,329 --> 00:48:53,609

they're constantly updating constantly

979

00:48:57,920 --> 00:48:56,339

and everything is time-stamped too as

980

00:49:01,670 --> 00:48:57,930

well so they go back to see when the

981

00:49:03,410 --> 00:49:01,680

error occurred exactly yep and that's

982

00:49:04,700 --> 00:49:03,420

happened in the history of Bitcoin where

983

00:49:07,280 --> 00:49:04,710

the foundation had to kind of agree

984

00:49:08,930 --> 00:49:07,290

before the change force every now and

985

00:49:10,040 --> 00:49:08,940

then you'll hear about Forks on the

986

00:49:11,390 --> 00:49:10,050

chain we won't get into that too much

987

00:49:15,650 --> 00:49:11,400

tonight since we're concerned more about

988

00:49:18,200 --> 00:49:15,660

this peer-to-peer aspect 1 & 2 the

989

00:49:20,089 --> 00:49:18,210

ability to run code across the peers

990

00:49:24,589 --> 00:49:20,099

that's why it's included in the equation

991

00:49:27,530 --> 00:49:24,599

now now we have the IOT which is quickly

992

00:49:31,940 --> 00:49:27,540

becoming one of the most popular terms

993

00:49:34,250 --> 00:49:31,950

on planet earth what is IOT so IOT

994

00:49:35,839 --> 00:49:34,260

stands for the Internet of Things right

995

00:49:36,920 --> 00:49:35,849

and that is pretty much what you were

996

00:49:38,990 --> 00:49:36,930

talking about with the smart

997

00:49:40,609 --> 00:49:39,000

refrigerators but it's not limited or

998

00:49:42,980 --> 00:49:40,619

refrigerators or the idea is that any

999

00:49:45,170 --> 00:49:42,990

physical device you know can have a

1000

00:49:47,870 --> 00:49:45,180

connection to the Internet which means

1001

00:49:50,210 --> 00:49:47,880

it can send data back to the

1002

00:49:53,120 --> 00:49:50,220

manufacturers database you can keep

1003

00:49:55,099 --> 00:49:53,130

track of what's going on you know you

1004

00:49:57,530 --> 00:49:55,109

have the cars connected to the Internet

1005

00:49:58,579 --> 00:49:57,540

you have all kinds of objects and

1006

00:50:00,710 --> 00:49:58,589

devices like you said eventually

1007

00:50:02,450 --> 00:50:00,720

toothbrushes connected to the Internet

1008

00:50:05,450 --> 00:50:02,460

all that data is being sent over the

1009

00:50:08,329 --> 00:50:05,460

internet somewhere but it provides a way

1010

00:50:11,540 --> 00:50:08,339

in to physical devices that wasn't there

1011

00:50:13,840 --> 00:50:11,550

before right even things like you know

1012

00:50:15,670 --> 00:50:13,850

to unlock a door right

1013

00:50:17,620 --> 00:50:15,680

the office you've probably seen this

1014

00:50:20,230 --> 00:50:17,630

some office spaces now you bring up your

1015

00:50:20,860 --> 00:50:20,240

app on your smartphone you say unlock

1016

00:50:22,960 --> 00:50:20,870

the door

1017

00:50:25,330 --> 00:50:22,970

rather than using a physical key anymore

1018

00:50:26,830 --> 00:50:25,340

right so that's is sending a message

1019

00:50:28,630 --> 00:50:26,840

through the Internet to some server

1020

00:50:31,630 --> 00:50:28,640

which is sending the message to that

1021

00:50:33,490 --> 00:50:31,640

door which means that that door is also

1022

00:50:35,380 --> 00:50:33,500

part of the Internet of Things because

1023

00:50:37,870 --> 00:50:35,390

it's now connected and it has some code

1024

00:50:39,790 --> 00:50:37,880

that is running on it yeah a smart house

1025

00:50:43,450 --> 00:50:39,800

is scary when you think about your

1026  
00:50:47,620 --> 00:50:43,460  
thermostat your refrigerator your your

1027  
00:50:53,790 --> 00:50:47,630  
garage door your lights your television

1028  
00:50:57,640 --> 00:50:53,800  
and everything in your room become a

1029  
00:50:59,050 --> 00:50:57,650  
huge much everything is becomes a part

1030  
00:51:00,820 --> 00:50:59,060  
of the Internet of Things and smart

1031  
00:51:02,830 --> 00:51:00,830  
homes is one aspect of that now there's

1032  
00:51:04,090 --> 00:51:02,840  
some convenience is there right when

1033  
00:51:06,130 --> 00:51:04,100  
you're traveling you can turn off your

1034  
00:51:07,660 --> 00:51:06,140  
lights you can turn them on you can see

1035  
00:51:10,240 --> 00:51:07,670  
who's at your door so there are some

1036  
00:51:12,850 --> 00:51:10,250  
positives there but it's this fact that

1037  
00:51:14,890 --> 00:51:12,860  
code is running everywhere is why it's

1038  
00:51:16,480 --> 00:51:14,900

part of this equation enough ml plus

1039

00:51:20,500 --> 00:51:16,490

blockchain plus I have T plus drones

1040

00:51:23,470 --> 00:51:20,510

equals Scott three years ago I did I did

1041

00:51:27,730 --> 00:51:23,480

one of my rant and I said you know what

1042

00:51:30,850 --> 00:51:27,740

would it be like if your bathroom mirror

1043

00:51:32,290 --> 00:51:30,860

you walk up and you turn on the TV it's

1044

00:51:34,540 --> 00:51:32,300

inside of your mirror and you're

1045

00:51:37,600 --> 00:51:34,550

watching you know the news the morning

1046

00:51:39,610 --> 00:51:37,610

show and you're doing that and the

1047

00:51:43,390 --> 00:51:39,620

mirror is talking to you telling you you

1048

00:51:47,350 --> 00:51:43,400

need to shave today and and you get down

1049

00:51:50,350 --> 00:51:47,360

and you pick up your electric razor and

1050

00:51:52,420 --> 00:51:50,360

it needs to be charged and your mirror

1051  
00:51:53,560 --> 00:51:52,430  
is telling you to charge right and

1052  
00:51:56,530 --> 00:51:53,570  
you're going through all it kind of

1053  
00:51:58,480 --> 00:51:56,540  
sounds cool at first but I said you

1054  
00:52:01,210 --> 00:51:58,490  
don't know who's now looking at you in

1055  
00:52:05,680 --> 00:52:01,220  
the mirror number one and number two you

1056  
00:52:07,990 --> 00:52:05,690  
are now completely connected to somebody

1057  
00:52:09,820 --> 00:52:08,000  
else's software that is now monitoring

1058  
00:52:12,700 --> 00:52:09,830  
everything about your daily life so I

1059  
00:52:14,230 --> 00:52:12,710  
did this whole thing and the next day my

1060  
00:52:15,640 --> 00:52:14,240  
phone rings I pick it up it's a friend

1061  
00:52:17,830 --> 00:52:15,650  
of mine here in Southern California goes

1062  
00:52:20,260 --> 00:52:17,840  
dude I heard your show last night I said

1063  
00:52:21,670 --> 00:52:20,270

really you listen to because I do and I

1064

00:52:24,370 --> 00:52:21,680

was listening guess what I'm doing right

1065

00:52:26,650 --> 00:52:24,380

now I said what because I'm writing code

1066

00:52:27,069 --> 00:52:26,660

for a company here in Southern

1067

00:52:29,979 --> 00:52:27,079

California

1068

00:52:34,209 --> 00:52:29,989

or Nia for bathroom mirrors and

1069

00:52:35,650 --> 00:52:34,219

toothbrushes because dude we are doing

1070

00:52:37,690 --> 00:52:35,660

it right now we're bringing it to market

1071

00:52:39,130 --> 00:52:37,700

and that was three years ago

1072

00:52:42,339 --> 00:52:39,140

and I was just letting my imagination

1073

00:52:45,579 --> 00:52:42,349

run I remember Rita after that

1074

00:52:48,249 --> 00:52:45,589

Riz she literally came up to me because

1075

00:52:51,370 --> 00:52:48,259

do you really think come on Jimmy you

1076

00:52:54,069 --> 00:52:51,380

know you're scared I said no it's I'm

1077

00:52:56,170 --> 00:52:54,079

what I'm afraid of is hackers yeah

1078

00:53:00,039 --> 00:52:56,180

that's what I'm afraid of if you go and

1079

00:53:01,839 --> 00:53:00,049

and if if a hacker really wanted because

1080

00:53:03,339 --> 00:53:01,849

these are all running on Android right

1081

00:53:06,279 --> 00:53:03,349

most of the Internet of Things is

1082

00:53:10,900 --> 00:53:06,289

running on Android and if a hacker out

1083

00:53:13,469 --> 00:53:10,910

there is really wanted to get those \$300

1084

00:53:18,759 --> 00:53:13,479

ransoms right you don't hack computers

1085

00:53:22,059 --> 00:53:18,769

pack the United States food supply pack

1086

00:53:26,799 --> 00:53:22,069

their refrigerators you'll get 300 bucks

1087

00:53:29,259 --> 00:53:26,809

a pop very quickly because that and just

1088

00:53:31,839 --> 00:53:29,269

think about that you know and that is

1089

00:53:33,489 --> 00:53:31,849

that is where we need to think about

1090

00:53:35,859 --> 00:53:33,499

cutting off the world and not

1091

00:53:37,809 --> 00:53:35,869

necessarily plugging in everywhere but

1092

00:53:40,779 --> 00:53:37,819

that's the Internet of Things I think

1093

00:53:43,599 --> 00:53:40,789

it's a dangerous zone too to continue

1094

00:53:45,099 --> 00:53:43,609

moving into I think quite recklessly

1095

00:53:47,920 --> 00:53:45,109

we're not we're not looking at the

1096

00:53:49,719 --> 00:53:47,930

implications I agree with you and I

1097

00:53:51,549 --> 00:53:49,729

think you know we're it's still a little

1098

00:53:53,829 --> 00:53:51,559

ways before all these things talk to

1099

00:53:55,839 --> 00:53:53,839

each other but the fact that they have

1100

00:53:58,569 --> 00:53:55,849

you know an Android based operating

1101  
00:54:00,430 --> 00:53:58,579  
system for example means that you know

1102  
00:54:04,719 --> 00:54:00,440  
anybody who knows that operating system

1103  
00:54:07,089 --> 00:54:04,729  
can figure out a way to get a code you

1104  
00:54:10,299 --> 00:54:07,099  
know on to those devices and you know I

1105  
00:54:12,880 --> 00:54:10,309  
I saw an app that somebody showed me

1106  
00:54:16,269 --> 00:54:12,890  
once that you know where he connected to

1107  
00:54:18,819 --> 00:54:16,279  
your local area network at somebody's

1108  
00:54:21,160 --> 00:54:18,829  
house and he said oh there's some

1109  
00:54:22,449 --> 00:54:21,170  
viruses on this and that on your Smart

1110  
00:54:25,809 --> 00:54:22,459  
TV on that that you don't even know

1111  
00:54:28,599 --> 00:54:25,819  
about so people are already you know

1112  
00:54:30,279 --> 00:54:28,609  
sending viruses to the internet of

1113  
00:54:32,709 --> 00:54:30,289

things and usually you don't know about

1114

00:54:34,479 --> 00:54:32,719

it you don't know it's there unless you

1115

00:54:35,949 --> 00:54:34,489

have you know something that can scan

1116

00:54:38,529 --> 00:54:35,959

most virus software we have today is

1117

00:54:40,359 --> 00:54:38,539

built for scanning your computer not

1118

00:54:43,809 --> 00:54:40,369

your fridge right it's right right

1119

00:54:46,089 --> 00:54:43,819

right and and it only takes you know one

1120

00:54:48,099 --> 00:54:46,099

bad actor out there it's all easy to do

1121

00:54:51,460 --> 00:54:48,109

they just have to have a reason to do it

1122

00:54:52,539 --> 00:54:51,470

or some spare time Rita just tweeted I

1123

00:54:55,450 --> 00:54:52,549

don't know if you saw this where she

1124

00:55:00,430 --> 00:54:55,460

goes what would a smart toothbrush do in

1125

00:55:02,380 --> 00:55:00,440

case of an AI rebellion my reply back

1126

00:55:06,279 --> 00:55:02,390

was I don't even need to think about

1127

00:55:08,170 --> 00:55:06,289

that other things that could be

1128

00:55:10,630 --> 00:55:08,180

problematic I don't know if you saw the

1129

00:55:13,210 --> 00:55:10,640

and I think you did see the x-files

1130

00:55:17,140 --> 00:55:13,220

episode yes wouldn't your show last time

1131

00:55:18,789 --> 00:55:17,150

we had the Roomba yeah the Roomba but

1132

00:55:20,739 --> 00:55:18,799

they had the sushi chefs who were robots

1133

00:55:23,140 --> 00:55:20,749

yes because they didn't leave a tip

1134

00:55:24,930 --> 00:55:23,150

those robots were connecting the central

1135

00:55:27,670 --> 00:55:24,940

server which was connecting to their

1136

00:55:29,769 --> 00:55:27,680

autonomous driver for their uber like

1137

00:55:31,299 --> 00:55:29,779

cars back home right which was they were

1138

00:55:32,980 --> 00:55:31,309

then connecting to their doors and

1139

00:55:34,900 --> 00:55:32,990

locking the door and having the Roomba

1140

00:55:37,420 --> 00:55:34,910

attack them and then the drones that

1141

00:55:39,519 --> 00:55:37,430

were delivering the Amazon packages you

1142

00:55:41,259 --> 00:55:39,529

know we're starting to gang up on them

1143

00:55:42,849 --> 00:55:41,269

and you know we've got the technology

1144

00:55:45,130 --> 00:55:42,859

for that we're not very far off from

1145

00:55:47,049 --> 00:55:45,140

that I mean that could happen soon the

1146

00:55:49,269 --> 00:55:47,059

AI that would do it all is not quite

1147

00:55:52,359 --> 00:55:49,279

there yet but the connections are there

1148

00:55:55,120 --> 00:55:52,369

yeah it's a scary scary thought and we

1149

00:55:57,249 --> 00:55:55,130

are right I mean we are so close it's

1150

00:55:58,950 --> 00:55:57,259

like lemmings to the sea right we're all

1151

00:56:03,130 --> 00:55:58,960

on the edge of the cliff right now

1152

00:56:04,809 --> 00:56:03,140

taking a peek we're taking a peek yeah

1153

00:56:07,180 --> 00:56:04,819

it's good to have you know some backup

1154

00:56:09,519 --> 00:56:07,190

the other day you know I was in San

1155

00:56:11,289 --> 00:56:09,529

Francisco and we were trying to call an

1156

00:56:13,059 --> 00:56:11,299

uber and meanwhile there were these cabs

1157

00:56:14,890 --> 00:56:13,069

just driving right by us it's like I had

1158

00:56:17,470 --> 00:56:14,900

forgotten how to call a cab because I'm

1159

00:56:19,150 --> 00:56:17,480

so used to going into my phone and

1160

00:56:20,440 --> 00:56:19,160

getting a car to come to me it's like oh

1161

00:56:21,759 --> 00:56:20,450

the old fashioned way of holding out

1162

00:56:24,190 --> 00:56:21,769

your hand actually still works so

1163

00:56:28,410 --> 00:56:24,200

sometimes we need to have backup ways of

1164

00:56:33,069 --> 00:56:28,420

doing things you forgot how to go analog

1165

00:56:36,430 --> 00:56:33,079

right that's funny all right and then of

1166

00:56:40,839 --> 00:56:36,440

course we have the next piece of your

1167

00:56:42,910 --> 00:56:40,849

equation is drones now we are I would

1168

00:56:45,489 --> 00:56:42,920

love to hear your definition of drones

1169

00:56:49,690 --> 00:56:45,499

you can go into any electronics store

1170

00:56:51,160 --> 00:56:49,700

now any any any store you walk in the

1171

00:56:54,370 --> 00:56:51,170

front door and that's what they've got

1172

00:56:57,220 --> 00:56:54,380

stacked up drones drones or every work

1173

00:57:01,090 --> 00:56:57,230

Frye's they I don't know how many drones

1174

00:57:03,700 --> 00:57:01,100

fry cells in a day but if their displays

1175

00:57:07,570 --> 00:57:03,710

of drones are any indication it just

1176

00:57:10,600 --> 00:57:07,580

it's got to be just tons its ballooning

1177

00:57:12,130 --> 00:57:10,610

and it's a pretty big area right now and

1178

00:57:13,650 --> 00:57:12,140

I know that a lot of venture capital

1179

00:57:16,060 --> 00:57:13,660

investment has gone into that area

1180

00:57:17,830 --> 00:57:16,070

because more and more people are using

1181

00:57:19,390 --> 00:57:17,840

drones now most of the drones are like

1182

00:57:21,700 --> 00:57:19,400

the quad copters right or they've got

1183

00:57:24,340 --> 00:57:21,710

the four little propellers right and you

1184

00:57:27,070 --> 00:57:24,350

can do that you know for a small size or

1185

00:57:28,960 --> 00:57:27,080

a big size and so drones by themselves

1186

00:57:31,870 --> 00:57:28,970

aren't that dangerous but if you look at

1187

00:57:33,250 --> 00:57:31,880

the drones we use in the military you

1188

00:57:35,200 --> 00:57:33,260

know particularly as we're bombing in

1189

00:57:38,140 --> 00:57:35,210

like Afghanistan or Pakistan which is

1190

00:57:39,640 --> 00:57:38,150

actually where I was born you've got

1191

00:57:41,650 --> 00:57:39,650

these drones that look a little bit

1192

00:57:43,990 --> 00:57:41,660

different from the drones that Frye's is

1193

00:57:45,190 --> 00:57:44,000

selling those drones look more like

1194

00:57:47,470 --> 00:57:45,200

little airplanes

1195

00:57:48,850 --> 00:57:47,480

where's the drones you know we're

1196

00:57:51,430 --> 00:57:48,860

getting are like these little you know

1197

00:57:54,580 --> 00:57:51,440

quad copters or little helicopters and

1198

00:57:57,010 --> 00:57:54,590

so drones become dangerous when they get

1199

00:58:00,220 --> 00:57:57,020

combined with weapons right so

1200

00:58:01,720 --> 00:58:00,230

weaponized drones is the real fear here

1201  
00:58:04,330 --> 00:58:01,730  
and if you look at some of the drones

1202  
00:58:07,450 --> 00:58:04,340  
today and you know I used at the end of

1203  
00:58:09,040 --> 00:58:07,460  
this formula I say equal Skynet as you

1204  
00:58:10,660 --> 00:58:09,050  
may know I'm a big fan of the Terminator

1205  
00:58:12,550 --> 00:58:10,670  
movies mm-hmm and you know they have

1206  
00:58:14,530 --> 00:58:12,560  
these things called HKS or a hunter

1207  
00:58:16,150 --> 00:58:14,540  
killers and you look at them and they're

1208  
00:58:18,070 --> 00:58:16,160  
just like they start off as little

1209  
00:58:20,560 --> 00:58:18,080  
drones and then they become more and

1210  
00:58:22,270 --> 00:58:20,570  
more sophisticated drones that can go up

1211  
00:58:24,670 --> 00:58:22,280  
and down and can fly anywhere so once

1212  
00:58:26,620 --> 00:58:24,680  
you combine drones with weapons now

1213  
00:58:28,180 --> 00:58:26,630

we're in dangerous territory we're close

1214

00:58:29,650 --> 00:58:28,190

to unlocking you know one of these gates

1215

00:58:31,390 --> 00:58:29,660

that I talked about I got to take a

1216

00:58:33,460 --> 00:58:31,400

break right here so let's get the

1217

00:58:36,070 --> 00:58:33,470

breakout and then we'll continue the

1218

00:58:37,990 --> 00:58:36,080

discussion when we come back our guest

1219

00:58:40,680 --> 00:58:38,000

tonight rizz Virk and we're discussing

1220

00:58:43,870 --> 00:58:40,690

his latest article the road to killer AI

1221

00:58:46,440 --> 00:58:43,880

ml plus blockchain plus io t plus drones

1222

00:58:50,320 --> 00:58:46,450

equals Skynet

1223

00:58:53,170 --> 00:58:50,330

rizz Burke unbelievable article you can

1224

00:58:55,180 --> 00:58:53,180

check it out over at hacker noon dot-com

1225

00:58:56,110 --> 00:58:55,190

Armijo super church this is fade to

1226

00:59:17,039 --> 00:58:56,120

black stay with us

1227

00:59:21,039 --> 00:59:18,910

this is fade to black

1228

00:59:24,729 --> 00:59:21,049

with Jimmy Church on the game changer

1229

00:59:26,519 --> 00:59:24,739

radio network and kgr a the global radio

1230

00:59:29,829 --> 00:59:26,529

alliance

1231

00:59:33,160 --> 00:59:29,839

this is KCRA digital broadcasting

1232

00:59:35,470 --> 00:59:33,170

station Salt Lake City Utah Van Buren

1233

00:59:37,599 --> 00:59:35,480

Arkansas does your basement or

1234

00:59:39,339 --> 00:59:37,609

crawlspace have a damp musty smell well

1235

00:59:41,499 --> 00:59:39,349

watch out that's a sign of too much

1236

00:59:43,359 --> 00:59:41,509

moisture and not enough ventilation and

1237

00:59:45,460 --> 00:59:43,369

that can mean increased mold growth and

1238

00:59:47,739 --> 00:59:45,470

the build-up of harmful toxins and gases

1239

00:59:49,900 --> 00:59:47,749

don't bother with a dehumidifier it just

1240

00:59:51,670 --> 00:59:49,910

circulates the same unhealthy air now

1241

00:59:53,559 --> 00:59:51,680

there's a better way to remove these

1242

00:59:55,930 --> 00:59:53,569

dangers and odors it's with the

1243

00:59:57,759 --> 00:59:55,940

computerized wave moisture control unit

1244

00:59:59,380 --> 00:59:57,769

that reduces moisture and expels

1245

01:00:01,390 --> 00:59:59,390

pollutants we replaced our old

1246

01:00:03,640 --> 01:00:01,400

dehumidifier with the wave unit and in

1247

01:00:06,039 --> 01:00:03,650

only three weeks our basement is dry and

1248

01:00:08,019 --> 01:00:06,049

the musty smell is gone wave units

1249

01:00:10,450 --> 01:00:08,029

require no maintenance no buckets of

1250

01:00:12,370 --> 01:00:10,460

water or filters and costs only pennies

1251

01:00:14,140 --> 01:00:12,380

a day to run breathe better live

1252

01:00:16,569 --> 01:00:14,150

healthier with an affordable no

1253

01:00:18,910 --> 01:00:16,579

maintenance wave unit call eight eight

1254

01:00:22,239 --> 01:00:18,920

eight seven one seven wait eight eight

1255

01:00:27,070 --> 01:00:22,249

eight seven one seven wabe or visit dry

1256

01:00:29,780 --> 01:00:27,080

healthy home comm dry healthy home calm

1257

01:00:30,820 --> 01:00:29,790

[Music]

1258

01:00:41,089 --> 01:00:30,830

Solutions

1259

01:00:45,599 --> 01:00:43,710

hi this is Ray sobs here reppin the

1260

01:00:48,569 --> 01:00:45,609

planet and you're listening to my good

1261

01:00:51,150 --> 01:00:48,579

friend Jimmy Church fade to black

1262

01:00:55,710 --> 01:00:51,160

on the GameChanger network and the kgr a

1263

01:00:57,839 --> 01:00:55,720

digital broadcast station this is Toby

1264

01:01:15,710 --> 01:00:57,849

Kebbell you're listening to Jimmy Church

1265

01:01:24,930 --> 01:01:21,539

revolution ancient life oil life

1266

01:01:27,599 --> 01:01:24,940

changing the real oil CBD is truly

1267

01:01:29,880 --> 01:01:27,609

ancient life oil from the source this

1268

01:01:32,880 --> 01:01:29,890

oil has no psychoactive effect and is

1269

01:01:35,190 --> 01:01:32,890

also legal in all 50 states when you're

1270

01:01:37,680 --> 01:01:35,200

healthy you're happy the truth about

1271

01:01:40,920 --> 01:01:37,690

this wonderful plan is that it wants to

1272

01:01:44,069 --> 01:01:40,930

give back to mankind life longevity and

1273

01:01:46,859 --> 01:01:44,079

happiness ancient life oil our golden

1274

01:01:49,229 --> 01:01:46,869

grain all organic non-gmo and infused

1275

01:01:51,989 --> 01:01:49,239

with high-quality liquid coconut oil

1276

01:01:55,349 --> 01:01:51,999

it's simple just go to ancient life oil

1277

01:01:56,579 --> 01:01:55,359

dot-com today that's ancient life oil

1278

01:02:00,839 --> 01:01:56,589

dot-com

1279

01:02:04,710 --> 01:02:00,849

the best purest organic and non-gmo CBD

1280

01:02:05,819 --> 01:02:04,720

in the world gobekli tepe the statements

1281

01:02:06,900 --> 01:02:05,829

made regarding these products have not

1282

01:02:08,099 --> 01:02:06,910

been evaluated by the Food and Drug

1283

01:02:09,479 --> 01:02:08,109

Administration these products are not

1284

01:02:11,309 --> 01:02:09,489

intended to diagnose treat cure or

1285

01:02:12,660 --> 01:02:11,319

prevent any disease please consult your

1286

01:02:13,979 --> 01:02:12,670

health care professional about potential

1287

01:02:15,870 --> 01:02:13,989

interactions or other possible

1288

01:02:17,640 --> 01:02:15,880

complications before using any product

1289

01:02:19,319 --> 01:02:17,650

this is my - Hanks of the graylien

1290

01:02:21,630 --> 01:02:19,329

report and you're listening to jimmy

1291

01:02:23,430 --> 01:02:21,640

church on fade to black across the globe

1292

01:02:26,890 --> 01:02:23,440

on the game-changer radio network and

1293

01:02:42,210 --> 01:02:26,900

the one and only kgr a radio the planet

1294

01:02:49,670 --> 01:02:47,380

[Music]

1295

01:02:53,320 --> 01:02:49,680

welcome back pain to black I'm your host

1296

01:02:57,500 --> 01:02:53,330

Jimmy church tonight rizz Burke is here

1297

01:03:00,470 --> 01:02:57,510

now this article that he wrote called

1298

01:03:04,760 --> 01:03:00,480

the road to killer AI ml plus blockchain

1299

01:03:07,880 --> 01:03:04,770

+ io t + drones equals a Skynet now it's

1300

01:03:10,870 --> 01:03:07,890

an important it's an important article

1301

01:03:13,700 --> 01:03:10,880

because I think all of us can step back

1302

01:03:16,960 --> 01:03:13,710

absorb this I don't think it's there to

1303

01:03:19,550 --> 01:03:16,970

scare us but certainly make us aware of

1304

01:03:22,400 --> 01:03:19,560

how this technology has crept into

1305

01:03:24,890 --> 01:03:22,410

every aspect of our lives and and I

1306

01:03:27,650 --> 01:03:24,900

don't think we've quite noticed the

1307

01:03:29,380 --> 01:03:27,660

intrusion but back to this drone thing

1308

01:03:34,670 --> 01:03:29,390

Burke

1309

01:03:36,560 --> 01:03:34,680

Riz verse cultures Berg Riz is is this

1310

01:03:39,020 --> 01:03:36,570

somebody that's you know graduated from

1311

01:03:46,010 --> 01:03:39,030

Stanford and MIT and I just call them

1312

01:03:49,310 --> 01:03:46,020

Burke yo Burke you know I have so much

1313

01:03:53,330 --> 01:03:49,320

respect for you and you are free to call

1314

01:03:56,660 --> 01:03:53,340

me Church is this I thought to myself a

1315

01:04:00,500 --> 01:03:56,670

couple of years ago and I know that it's

1316

01:04:03,410 --> 01:04:00,510

an easy polluted thought to have but I

1317

01:04:05,360 --> 01:04:03,420

have I have a few drones ok I do I I

1318

01:04:08,420 --> 01:04:05,370

have radio control cars and helicopters

1319

01:04:10,340 --> 01:04:08,430

and drones and and I dig that stuff

1320

01:04:12,800 --> 01:04:10,350

they're fun and plus I can terrorize my

1321

01:04:14,960 --> 01:04:12,810

dogs with them which is is that you know

1322

01:04:16,730 --> 01:04:14,970

that's the bonus but I'm sitting here

1323

01:04:21,440 --> 01:04:16,740

looking at them and I thought because

1324

01:04:25,400 --> 01:04:21,450

one of my one of my drones has a little

1325

01:04:30,140 --> 01:04:25,410

cannon on it and the cannon shoots these

1326

01:04:32,960 --> 01:04:30,150

little tiny green balls right little

1327

01:04:34,790 --> 01:04:32,970

tiny green balls they don't hunt you

1328

01:04:36,860 --> 01:04:34,800

know they just you know they just they

1329

01:04:39,080 --> 01:04:36,870

cast through the air they don't shoot in

1330

01:04:43,790 --> 01:04:39,090

a straight line right but anyway it's

1331

01:04:46,010 --> 01:04:43,800

fun to use on your dog's by anyway and I

1332

01:04:49,910 --> 01:04:46,020

was thinking about self what would stop

1333

01:04:53,060 --> 01:04:49,920

somebody from like putting a Glock on a

1334

01:04:55,310 --> 01:04:53,070

drone and figuring out it's not it's you

1335

01:04:57,190 --> 01:04:55,320

know and and with a good remote control

1336

01:04:59,650 --> 01:04:57,200

you've got all kinds of

1337

01:05:03,850 --> 01:04:59,660

additional commands that you can do and

1338

01:05:05,140 --> 01:05:03,860

you know Herc hook up a servo to it and

1339

01:05:06,610 --> 01:05:05,150

just hit the button and boom and start

1340

01:05:08,620 --> 01:05:06,620

pulling a trigger right and you've

1341

01:05:12,400 --> 01:05:08,630

already got the camera there in high-def

1342

01:05:15,820 --> 01:05:12,410

and and right after that thought popped

1343

01:05:18,040 --> 01:05:15,830

in my head I see a video on YouTube

1344

01:05:20,920 --> 01:05:18,050

dude's got a Glock on a drone and he's

1345

01:05:26,710 --> 01:05:20,930

out on a target range with it firing off

1346

01:05:29,230 --> 01:05:26,720

this clock now we talk about Isis okay I

1347

01:05:32,590 --> 01:05:29,240

get that but you can do it with whatever

1348

01:05:34,930 --> 01:05:32,600

you buy at Fry's and and that's that's a

1349

01:05:37,780 --> 01:05:34,940

scary scary thought and and to have it

1350

01:05:40,570 --> 01:05:37,790

taken over or maybe run by somebody else

1351  
01:05:43,480 --> 01:05:40,580  
you only need the germ of the idea to

1352  
01:05:47,170 --> 01:05:43,490  
have it run away with the crazies out

1353  
01:05:50,320 --> 01:05:47,180  
there well yeah that's true and you know

1354  
01:05:52,390 --> 01:05:50,330  
once the weapons are on the drones which

1355  
01:05:54,340 --> 01:05:52,400  
they are to a certain extent already and

1356  
01:05:55,570 --> 01:05:54,350  
you said you saw that YouTube video

1357  
01:05:58,020 --> 01:05:55,580  
there's another YouTube video that's

1358  
01:06:00,310 --> 01:05:58,030  
pretty scary is by a berkeley professor

1359  
01:06:02,650 --> 01:06:00,320  
named Stuart Russell who's an AI

1360  
01:06:05,350 --> 01:06:02,660  
researcher and you know he created a

1361  
01:06:07,300 --> 01:06:05,360  
video called slaughter BOTS and he's

1362  
01:06:08,440 --> 01:06:07,310  
showing these little drones very small

1363  
01:06:10,840 --> 01:06:08,450

drones just like the ones you buy at

1364

01:06:12,460 --> 01:06:10,850

Fry's but even smaller and he's

1365

01:06:14,830 --> 01:06:12,470

presenting it as if it's a company that

1366

01:06:16,330 --> 01:06:14,840

makes these right kind of like getting

1367

01:06:18,460 --> 01:06:16,340

back to the Terminator Cyberdyne systems

1368

01:06:22,600 --> 01:06:18,470

right if any of you have been to the

1369

01:06:24,730 --> 01:06:22,610

Universal Studios a terminator 2 exhibit

1370

01:06:26,650 --> 01:06:24,740

at down in Florida and I think they have

1371

01:06:28,420 --> 01:06:26,660

one in California now as well you know

1372

01:06:29,860 --> 01:06:28,430

you walk through the simulated Cyberdyne

1373

01:06:31,600 --> 01:06:29,870

systems and they show you all their

1374

01:06:34,090 --> 01:06:31,610

latest models of these killer robots

1375

01:06:36,280 --> 01:06:34,100

well this video was kind of like that

1376

01:06:37,930 --> 01:06:36,290

with these small drones and they had

1377

01:06:39,250 --> 01:06:37,940

some explosives on the drones and you

1378

01:06:41,680 --> 01:06:39,260

could see while he was talking the

1379

01:06:43,270 --> 01:06:41,690

camera from the drone had him as a

1380

01:06:44,590 --> 01:06:43,280

target and then later they showed a

1381

01:06:46,720 --> 01:06:44,600

target of something else in the drone

1382

01:06:48,310 --> 01:06:46,730

had an explosive device and it just went

1383

01:06:49,870 --> 01:06:48,320

and you know killed a dummy in this case

1384

01:06:52,270 --> 01:06:49,880

it was just a dummy but it was a pretty

1385

01:06:55,810 --> 01:06:52,280

scary video because we're not that far

1386

01:06:58,510 --> 01:06:55,820

from being able to do that and if you're

1387

01:07:00,970 --> 01:06:58,520

controlling it electronically well then

1388

01:07:04,210 --> 01:07:00,980

it can be hacked either by hackers today

1389

01:07:05,710 --> 01:07:04,220

or by an AI in the future so anyone

1390

01:07:08,230 --> 01:07:05,720

who's worried about you know killer AI

1391

01:07:10,810 --> 01:07:08,240

it's it's an interesting video to see

1392

01:07:13,570 --> 01:07:10,820

online with respect to drones

1393

01:07:15,520 --> 01:07:13,580

now let's go to let's start to break

1394

01:07:18,910 --> 01:07:15,530

this down now that we have the equation

1395

01:07:21,580 --> 01:07:18,920

oh oh of course Skynet now we're all

1396

01:07:23,800 --> 01:07:21,590

well no you know what whenever I say

1397

01:07:25,570 --> 01:07:23,810

we're all familiar with Skynet I'll see

1398

01:07:29,140 --> 01:07:25,580

the tweet come in I'll get an email what

1399

01:07:31,060 --> 01:07:29,150

is Skynet so let's let's just get keep

1400

01:07:36,030 --> 01:07:31,070

everybody up on top of this what is

1401  
01:07:39,610 --> 01:07:36,040  
Skynet well so Skynet is the killer a AI

1402  
01:07:42,460 --> 01:07:39,620  
from the Terminator series of movies and

1403  
01:07:43,930 --> 01:07:42,470  
the idea is that there's a in this

1404  
01:07:46,000 --> 01:07:43,940  
fictional universe right

1405  
01:07:50,050 --> 01:07:46,010  
there's a company Cyberdyne systems

1406  
01:07:52,960 --> 01:07:50,060  
that's building AI and that AI becomes

1407  
01:07:55,750 --> 01:07:52,970  
self-aware at a certain point but before

1408  
01:07:59,020 --> 01:07:55,760  
it becomes self-aware the military uses

1409  
01:08:01,840 --> 01:07:59,030  
Skynet to replace pilots on planes and

1410  
01:08:03,630 --> 01:08:01,850  
all military missions and the efficiency

1411  
01:08:06,070 --> 01:08:03,640  
of the military missions goes way up

1412  
01:08:08,980 --> 01:08:06,080  
because theoretically the AI doesn't

1413  
01:08:11,170 --> 01:08:08,990

make a mistake so that's all interesting

1414

01:08:13,390 --> 01:08:11,180

from the perspective of the military

1415

01:08:15,880 --> 01:08:13,400

initially but then Skynet becomes

1416

01:08:18,579 --> 01:08:15,890

self-aware and decides that the only way

1417

01:08:21,370 --> 01:08:18,589

for it to survive is to kill the humans

1418

01:08:23,620 --> 01:08:21,380

so it since it has connections into the

1419

01:08:26,400 --> 01:08:23,630

military system at that point it fires

1420

01:08:30,000 --> 01:08:26,410

our nuclear weapons against ourselves

1421

01:08:32,829 --> 01:08:30,010

and then it also creates actual robots

1422

01:08:34,270 --> 01:08:32,839

physical robots that it can use like the

1423

01:08:35,940 --> 01:08:34,280

Terminator which is the character that

1424

01:08:38,710 --> 01:08:35,950

Arnold Schwarzenegger played which was a

1425

01:08:40,150 --> 01:08:38,720

cybernetic organism a machine that was

1426

01:08:41,530 --> 01:08:40,160

sent back in time now we're getting into

1427

01:08:43,120 --> 01:08:41,540

you know different parts of the story

1428

01:08:46,120 --> 01:08:43,130

but Skynet itself

1429

01:08:48,340 --> 01:08:46,130

it was the master AI that decided it

1430

01:08:50,380 --> 01:08:48,350

didn't need humans anymore and maybe it

1431

01:08:51,099 --> 01:08:50,390

needed a few so it used his robots to

1432

01:08:55,560 --> 01:08:51,109

enslave them

1433

01:09:00,370 --> 01:08:55,570

now when Terminator 2 came out the

1434

01:09:03,220 --> 01:09:00,380

Pentium chip wasn't out yet Windows 95

1435

01:09:07,300 --> 01:09:03,230

wasn't out yet the internet although it

1436

01:09:08,590 --> 01:09:07,310

was there was there for a couple of

1437

01:09:11,560 --> 01:09:08,600

hundred people around the United States

1438

01:09:14,829 --> 01:09:11,570

that were you know sharing email with

1439

01:09:18,760 --> 01:09:14,839

each other and it was starting to grow

1440

01:09:21,940 --> 01:09:18,770

but nobody knew what the internet or the

1441

01:09:23,360 --> 01:09:21,950

future or America Online was now you

1442

01:09:25,580 --> 01:09:23,370

know when Terminator 2

1443

01:09:28,310 --> 01:09:25,590

was launched so the vision of the future

1444

01:09:32,110 --> 01:09:28,320

with Skynet and what Cameron did there

1445

01:09:35,570 --> 01:09:32,120

was which which was a pretty solid

1446

01:09:38,510 --> 01:09:35,580

futurist view of things to come but we

1447

01:09:39,710 --> 01:09:38,520

actually arrived yeah it really was and

1448

01:09:41,330 --> 01:09:39,720

I don't know if you know the story of

1449

01:09:42,770 --> 01:09:41,340

how he came up with the idea but you

1450

01:09:44,390 --> 01:09:42,780

know the first time I was on your show

1451  
01:09:46,490 --> 01:09:44,400  
is talking about my book treasure hunt

1452  
01:09:48,140 --> 01:09:46,500  
which is all about where do we get our

1453  
01:09:50,660 --> 01:09:48,150  
intuitions that lead us down a certain

1454  
01:09:52,760 --> 01:09:50,670  
path in life which I call clues to

1455  
01:09:54,800 --> 01:09:52,770  
follow so James Cameron was a young

1456  
01:09:56,930 --> 01:09:54,810  
filmmaker working on these B movies I

1457  
01:09:59,210 --> 01:09:56,940  
think it was like John Carpenter movies

1458  
01:10:00,560 --> 01:09:59,220  
or something he was in Italy and one day

1459  
01:10:02,420 --> 01:10:00,570  
was really sick and he couldn't go to

1460  
01:10:04,790 --> 01:10:02,430  
the set so it was kind of in a delirium

1461  
01:10:07,160 --> 01:10:04,800  
and he had this dream about robots

1462  
01:10:08,990 --> 01:10:07,170  
emerging from the fire you know and he

1463  
01:10:10,700 --> 01:10:09,000

woke up and he didn't really know what

1464

01:10:13,070 --> 01:10:10,710

to do with it so he drew a picture of

1465

01:10:14,780 --> 01:10:13,080

these robots emerging from a fire and he

1466

01:10:16,790 --> 01:10:14,790

presented it to his friend Gail who was

1467

01:10:18,860 --> 01:10:16,800

also working on the movies and she said

1468

01:10:21,320 --> 01:10:18,870

well what's the story behind this you

1469

01:10:23,240 --> 01:10:21,330

know can you expand on it so he then

1470

01:10:25,310 --> 01:10:23,250

ended up writing the script for the

1471

01:10:27,050 --> 01:10:25,320

Terminator and Gale Anne Hurd became the

1472

01:10:28,370 --> 01:10:27,060

producer and James Cameron we know is

1473

01:10:30,440 --> 01:10:28,380

one of the most famous directors of all

1474

01:10:31,880 --> 01:10:30,450

time but you know he was falling a clue

1475

01:10:33,590 --> 01:10:31,890

that came to him in the middle the night

1476

01:10:35,570 --> 01:10:33,600

so I think there was a lot of precedents

1477

01:10:37,100 --> 01:10:35,580

there we're only now beginning to see

1478

01:10:39,170 --> 01:10:37,110

you know how something like this could

1479

01:10:40,550 --> 01:10:39,180

actually happen I think back then we

1480

01:10:43,640 --> 01:10:40,560

didn't really know how we would go from

1481

01:10:45,410 --> 01:10:43,650

where we were - to this kind of you know

1482

01:10:47,630 --> 01:10:45,420

general artificial intelligence that

1483

01:10:50,930 --> 01:10:47,640

wants to take over well now as we look

1484

01:10:55,870 --> 01:10:50,940

at your formula here the first step in

1485

01:10:59,510 --> 01:10:55,880

this conversation has to be can AI

1486

01:11:02,020 --> 01:10:59,520

surpass humans and certainly that

1487

01:11:06,830 --> 01:11:02,030

discussion is is out there daily and

1488

01:11:10,820 --> 01:11:06,840

that is a date in our future that is is

1489

01:11:14,420 --> 01:11:10,830

much discussed is it possible well so

1490

01:11:16,160 --> 01:11:14,430

you know back in the 50s or 60s Alan

1491

01:11:19,700 --> 01:11:16,170

Turing who was one of the fathers of

1492

01:11:21,710 --> 01:11:19,710

computer science and another colleague

1493

01:11:25,370 --> 01:11:21,720

of his you know they had talked about

1494

01:11:27,590 --> 01:11:25,380

this idea of a point at which AI gets to

1495

01:11:29,870 --> 01:11:27,600

be more intelligent than humans

1496

01:11:30,860 --> 01:11:29,880

and I don't remember who exactly who was

1497

01:11:34,220 --> 01:11:30,870

one of them came up with the term the

1498

01:11:37,340 --> 01:11:34,230

singularity which was that point and

1499

01:11:40,130 --> 01:11:37,350

then later you know you had people like

1500

01:11:42,140 --> 01:11:40,140

fiction writer Vernor Vinge and Ray

1501  
01:11:45,410 --> 01:11:42,150  
Kurzweil and others start popularizing

1502  
01:11:47,270 --> 01:11:45,420  
that term the singularity and you know

1503  
01:11:50,390 --> 01:11:47,280  
one of the people who's been really

1504  
01:11:52,430 --> 01:11:50,400  
concerned about this this topic is a

1505  
01:11:54,770 --> 01:11:52,440  
researcher at Oxford his name is Nick

1506  
01:11:56,900 --> 01:11:54,780  
Bostrom and he wrote a book called super

1507  
01:11:59,210 --> 01:11:56,910  
intelligence which is all about how AI

1508  
01:12:01,070 --> 01:11:59,220  
could be more intelligent than humans so

1509  
01:12:03,410 --> 01:12:01,080  
we're not at that point yet but I argue

1510  
01:12:05,960 --> 01:12:03,420  
in this article that we may not need to

1511  
01:12:08,180 --> 01:12:05,970  
even be at that point like the AI

1512  
01:12:10,430 --> 01:12:08,190  
doesn't actually have to be smarter than

1513  
01:12:13,340 --> 01:12:10,440

humans in order for some type of

1514

01:12:16,810 --> 01:12:13,350

catastrophe to take place so we already

1515

01:12:19,400 --> 01:12:16,820

have killer AI in Texas the other day a

1516

01:12:21,620 --> 01:12:19,410

self-driving car ran over a pedestrian

1517

01:12:24,230 --> 01:12:21,630

and killed him right so you can have

1518

01:12:27,740 --> 01:12:24,240

dumb AI that's killing people as well as

1519

01:12:30,560 --> 01:12:27,750

smart AI and you know I sometimes use

1520

01:12:32,660 --> 01:12:30,570

the analogy that one of my spiritual

1521

01:12:34,550 --> 01:12:32,670

teacher said to me if you wanna if

1522

01:12:37,010 --> 01:12:34,560

you're having a sparring match with the

1523

01:12:37,910 --> 01:12:37,020

first level black belt or like a fifth

1524

01:12:39,680 --> 01:12:37,920

level black belt

1525

01:12:41,270 --> 01:12:39,690

you'd rather be fighting the fifth level

1526

01:12:44,450 --> 01:12:41,280

black belt and I said well why is that

1527

01:12:46,070 --> 01:12:44,460

and he says well because he has he or

1528

01:12:47,750 --> 01:12:46,080

she has more control and they won't hurt

1529

01:12:49,340 --> 01:12:47,760

you whereas the guy who just became a

1530

01:12:50,840 --> 01:12:49,350

black belt may have a lot of power but

1531

01:12:53,000 --> 01:12:50,850

he may not have as much control and he

1532

01:12:55,550 --> 01:12:53,010

may end up hurting you by mistake the

1533

01:12:57,350 --> 01:12:55,560

same could happen with AI it doesn't

1534

01:12:59,090 --> 01:12:57,360

have to be way more intelligent than us

1535

01:13:01,970 --> 01:12:59,100

in fact if it has a set of values that

1536

01:13:03,860 --> 01:13:01,980

tell it it needs to kill humans you know

1537

01:13:05,780 --> 01:13:03,870

it the smarter AI might figure out

1538

01:13:08,090 --> 01:13:05,790

that's not the best thing to do but the

1539

01:13:10,640 --> 01:13:08,100

AI which is smart not talking about dumb

1540

01:13:13,190 --> 01:13:10,650

AI but maybe of equal intelligence or

1541

01:13:15,170 --> 01:13:13,200

even close to equal intelligence you

1542

01:13:18,140 --> 01:13:15,180

know they could still win in a physical

1543

01:13:20,360 --> 01:13:18,150

fight by taking over different weapons

1544

01:13:22,820 --> 01:13:20,370

systems etc so we may never we may not

1545

01:13:26,150 --> 01:13:22,830

even need to reach the singularity in in

1546

01:13:28,370 --> 01:13:26,160

my opinion for this scenario to happen

1547

01:13:31,220 --> 01:13:28,380

it just depends on you know how the AI

1548

01:13:32,630 --> 01:13:31,230

is programmed and what its goals and its

1549

01:13:34,970 --> 01:13:32,640

values are and its goals may be

1550

01:13:36,880 --> 01:13:34,980

different than ours so you lay it out in

1551

01:13:39,350 --> 01:13:36,890

the article

1552

01:13:41,450 --> 01:13:39,360

you talk about the science fiction

1553

01:13:43,310 --> 01:13:41,460

aspect of it all science fiction is a

1554

01:13:45,620 --> 01:13:43,320

prediction of our future and a lot of it

1555

01:13:47,270 --> 01:13:45,630

has come to pass we don't need to list

1556

01:13:49,640 --> 01:13:47,280

all of those things here now but we

1557

01:13:52,010 --> 01:13:49,650

understand that certainly but you lay

1558

01:13:55,280 --> 01:13:52,020

out the scenario really well just like

1559

01:14:02,450 --> 01:13:55,290

we've done here but then you get to the

1560

01:14:06,560 --> 01:14:02,460

four gates of killer AI and so I want to

1561

01:14:08,600 --> 01:14:06,570

break these down and let's start let's

1562

01:14:13,460 --> 01:14:08,610

just go right into it let's start with

1563

01:14:18,380 --> 01:14:13,470

gate one ai and mi which is general

1564

01:14:20,810 --> 01:14:18,390

purpose and not a specific right so yeah

1565

01:14:23,420 --> 01:14:20,820

so these gates are meant to be gates

1566

01:14:25,910 --> 01:14:23,430

that if we unlock them with our

1567

01:14:27,740 --> 01:14:25,920

technology that's when we should start

1568

01:14:29,660 --> 01:14:27,750

to be worried right so people might ask

1569

01:14:31,640 --> 01:14:29,670

okay when could this happen it's not

1570

01:14:36,100 --> 01:14:31,650

going to happen today but these four

1571

01:14:39,020 --> 01:14:36,110

gates I think are sort of necessary

1572

01:14:41,050 --> 01:14:39,030

precursors to having this nightmare

1573

01:14:43,250 --> 01:14:41,060

scenario now there are lots of other AI

1574

01:14:44,720 --> 01:14:43,260

aspects that might be beneficial to us

1575

01:14:48,080 --> 01:14:44,730

but this is what we need to worry about

1576

01:14:49,520 --> 01:14:48,090

so the first gate is that says that you

1577

01:14:53,630 --> 01:14:49,530

know we need to have AI that's a little

1578

01:14:56,090 --> 01:14:53,640

more general whereas today the AI and

1579

01:14:58,520 --> 01:14:56,100

the ML is very specific so I talked

1580

01:15:02,510 --> 01:14:58,530

earlier about training or machine

1581

01:15:05,830 --> 01:15:02,520

learning and so you know we can train a

1582

01:15:08,570 --> 01:15:05,840

computer system today to be good at

1583

01:15:11,930 --> 01:15:08,580

handwriting or to be good at recognizing

1584

01:15:14,840 --> 01:15:11,940

you know radiology from x-rays it could

1585

01:15:16,130 --> 01:15:14,850

recognize faces in a crowd right so

1586

01:15:19,730 --> 01:15:16,140

there are so many different things that

1587

01:15:21,800 --> 01:15:19,740

AI can do but it's still very specific

1588

01:15:24,320 --> 01:15:21,810

to that task it has to be trained on

1589

01:15:26,900 --> 01:15:24,330

that task I mean going back to science

1590

01:15:29,120 --> 01:15:26,910

fiction you know if you think of for

1591

01:15:31,790 --> 01:15:29,130

example in Star Trek The Next Generation

1592

01:15:33,950 --> 01:15:31,800

right they have the Android data he was

1593

01:15:37,100 --> 01:15:33,960

a general-purpose a he could learn new

1594

01:15:40,040 --> 01:15:37,110

things on his own he wasn't just trained

1595

01:15:42,560 --> 01:15:40,050

on very specific tasks now we could

1596

01:15:45,620 --> 01:15:42,570

approximate that today we could go and

1597

01:15:47,450 --> 01:15:45,630

say okay let's have one machine learning

1598

01:15:49,160 --> 01:15:47,460

thing that tells you which task to do

1599

01:15:50,290 --> 01:15:49,170

and then you go to the more specific

1600

01:15:51,790 --> 01:15:50,300

task

1601  
01:15:54,460 --> 01:15:51,800  
but even that's not enough this is where

1602  
01:15:55,930 --> 01:15:54,470  
I think we need a third wave of AI to

1603  
01:15:58,570 --> 01:15:55,940  
get to this this thing that's called a

1604  
01:15:59,890 --> 01:15:58,580  
you know a GI artificial or artificial

1605  
01:16:02,410 --> 01:15:59,900  
general intelligence or generalized

1606  
01:16:06,060 --> 01:16:02,420  
artificial intelligence and we're not

1607  
01:16:09,180 --> 01:16:06,070  
there yet but we are at the point where

1608  
01:16:10,930 --> 01:16:09,190  
machines can learn on their own

1609  
01:16:12,640 --> 01:16:10,940  
unsupervised

1610  
01:16:14,290 --> 01:16:12,650  
so I've so far I've talked about

1611  
01:16:17,770 --> 01:16:14,300  
training it with datasets that humans

1612  
01:16:20,590 --> 01:16:17,780  
have already classified so it can tell

1613  
01:16:23,050 --> 01:16:20,600

if it's right or wrong there's a great

1614

01:16:25,180 --> 01:16:23,060

example where AI is being used to play

1615

01:16:26,950 --> 01:16:25,190

games and we know that you know many

1616

01:16:31,210 --> 01:16:26,960

years ago was a deep-blue I think one of

1617

01:16:34,930 --> 01:16:31,220

the MIT sorry the IBM a eyes beats the

1618

01:16:36,820 --> 01:16:34,940

human champion in chess well later they

1619

01:16:38,650 --> 01:16:36,830

were wondering if it could play the game

1620

01:16:40,030 --> 01:16:38,660

go now I'm not a player of go I don't

1621

01:16:41,620 --> 01:16:40,040

know if you are but it's more complex

1622

01:16:43,990 --> 01:16:41,630

than chess and has a lot of rules and

1623

01:16:47,080 --> 01:16:44,000

what happened was they told the AI the

1624

01:16:49,540 --> 01:16:47,090

rules of the game go and then they just

1625

01:16:52,150 --> 01:16:49,550

let it play against itself so it

1626

01:16:55,060 --> 01:16:52,160

actually figured out what the best

1627

01:16:58,060 --> 01:16:55,070

strategies were based upon you know who

1628

01:17:00,370 --> 01:16:58,070

won a or B and a and B were the same AI

1629

01:17:02,350 --> 01:17:00,380

in this case and so it actually got good

1630

01:17:05,020 --> 01:17:02,360

enough to beat the best human players

1631

01:17:07,080 --> 01:17:05,030

that go and so now we're seeing that

1632

01:17:09,790 --> 01:17:07,090

machines can learn on their own

1633

01:17:12,550 --> 01:17:09,800

unsupervised who are entering kind of a

1634

01:17:14,380 --> 01:17:12,560

new area but still that was for that

1635

01:17:17,320 --> 01:17:14,390

task of playing go you could see a

1636

01:17:19,510 --> 01:17:17,330

generalized maybe two other games the

1637

01:17:21,310 --> 01:17:19,520

autonomous cars will talk about

1638

01:17:23,920 --> 01:17:21,320

autonomous drones in a minute but anima

1639

01:17:27,130 --> 01:17:23,930

scars you know know the rules of the

1640

01:17:29,710 --> 01:17:27,140

road so that's the rule based and then

1641

01:17:31,960 --> 01:17:29,720

we feed it a lot of data which are the

1642

01:17:33,520 --> 01:17:31,970

signs and this is a person and this is

1643

01:17:35,260 --> 01:17:33,530

what you're supposed to do and you know

1644

01:17:36,850 --> 01:17:35,270

one of the problems that that Google had

1645

01:17:38,710 --> 01:17:36,860

like with their autonomous cars you know

1646

01:17:40,570 --> 01:17:38,720

I live in Mountain View right right down

1647

01:17:42,790 --> 01:17:40,580

the road from Google so we used to see

1648

01:17:44,740 --> 01:17:42,800

their autonomous cars years ago like

1649

01:17:46,960 --> 01:17:44,750

back in like 2007 when I first moved

1650

01:17:49,150 --> 01:17:46,970

there it was that it would stop at the

1651  
01:17:51,400 --> 01:17:49,160  
stoplight and it would wait for humans

1652  
01:17:52,810 --> 01:17:51,410  
to stop but the humans never stopped

1653  
01:17:55,150 --> 01:17:52,820  
they just kind of came to a rolling

1654  
01:17:56,680 --> 01:17:55,160  
thing so the car the autonomous car just

1655  
01:17:59,740 --> 01:17:56,690  
sat there because the humans never

1656  
01:18:02,230 --> 01:17:59,750  
stopped at a four-way stop so you know

1657  
01:18:04,210 --> 01:18:02,240  
the rules is the first step

1658  
01:18:06,100 --> 01:18:04,220  
data is the second step

1659  
01:18:07,750 --> 01:18:06,110  
there's this fuzziness of how things

1660  
01:18:10,600 --> 01:18:07,760  
happen in the real world and so we're

1661  
01:18:15,760 --> 01:18:10,610  
still a ways away from unlocking this

1662  
01:18:18,990 --> 01:18:15,770  
gate I think and the the the question

1663  
01:18:25,840 --> 01:18:19,000

that I think should be addressed is

1664

01:18:30,190 --> 01:18:25,850

should we not allow machine learning in

1665

01:18:32,350 --> 01:18:30,200

the aspect of we we throw the code in it

1666

01:18:34,720 --> 01:18:32,360

you know it's done it's perfected and

1667

01:18:39,670 --> 01:18:34,730

they can do their task but there's no

1668

01:18:43,240 --> 01:18:39,680

like Ram there's no there's no ability

1669

01:18:46,780 --> 01:18:43,250

to you could only read but you can't

1670

01:18:49,000 --> 01:18:46,790

write and you can't solve problems

1671

01:18:52,360 --> 01:18:49,010

you're only dealing with and the code

1672

01:18:56,410 --> 01:18:52,370

could be very complex but the code only

1673

01:18:58,920 --> 01:18:56,420

reads it would that be an answer well

1674

01:19:03,160 --> 01:18:58,930

that's an initial answer right and so

1675

01:19:05,230 --> 01:19:03,170

today you know most of the time the code

1676

01:19:07,960 --> 01:19:05,240

is written actually there are general

1677

01:19:09,780 --> 01:19:07,970

algorithms right like the IBM Watson but

1678

01:19:12,310 --> 01:19:09,790

then they're applied and trained on

1679

01:19:16,390 --> 01:19:12,320

specific datasets and they run on

1680

01:19:17,950 --> 01:19:16,400

specific computers but there's a there's

1681

01:19:20,320 --> 01:19:17,960

an interesting book on this by an MIT

1682

01:19:22,390 --> 01:19:20,330

professor named Max tegmark called

1683

01:19:23,920 --> 01:19:22,400

life's 3.0 and he lays out a scenario

1684

01:19:26,170 --> 01:19:23,930

where a company developed this

1685

01:19:28,990 --> 01:19:26,180

general-purpose AI and they ran it only

1686

01:19:32,560 --> 01:19:29,000

on virtual machines right and so virtual

1687

01:19:35,710 --> 01:19:32,570

machine is like for example you know I

1688

01:19:38,440 --> 01:19:35,720

have a Mac here but I could run Windows

1689

01:19:41,710 --> 01:19:38,450

on a virtual machine inside my Mac so it

1690

01:19:45,040 --> 01:19:41,720

becomes like a bounded virtual machine

1691

01:19:47,370 --> 01:19:45,050

so if it's running in there it can't

1692

01:19:50,200 --> 01:19:47,380

necessarily affect my Hardware directly

1693

01:19:51,850 --> 01:19:50,210

because it's limited it's not running on

1694

01:19:53,680 --> 01:19:51,860

an actual physical processor it's

1695

01:19:55,690 --> 01:19:53,690

running on code on top of the processor

1696

01:19:58,930 --> 01:19:55,700

that's right and so there are ways to do

1697

01:20:00,550 --> 01:19:58,940

that initially but over time you know as

1698

01:20:02,710 --> 01:20:00,560

the virtual machines get more

1699

01:20:04,360 --> 01:20:02,720

sophisticated and there are ways for

1700

01:20:06,940 --> 01:20:04,370

virtual machines to talk to each other

1701

01:20:10,000 --> 01:20:06,950

you know that becomes a little more

1702

01:20:12,520 --> 01:20:10,010

tenuous I think in the beginning yes but

1703

01:20:14,020 --> 01:20:12,530

over time depends on how many of those

1704

01:20:16,330 --> 01:20:14,030

virtual machines are out there and how

1705

01:20:18,370 --> 01:20:16,340

sophisticated they are and as we start

1706

01:20:21,149 --> 01:20:18,380

talking about IOT this is why

1707

01:20:24,750 --> 01:20:21,159

the equation isn't just AI equal sky now

1708

01:20:27,339 --> 01:20:24,760

it's these other pieces that actually

1709

01:20:28,720 --> 01:20:27,349

make a big difference because if the

1710

01:20:31,180 --> 01:20:28,730

virtual machines are running on these

1711

01:20:33,310 --> 01:20:31,190

IOT s well they have to be able to

1712

01:20:36,250 --> 01:20:33,320

impact the hardware somehow right you

1713

01:20:38,740 --> 01:20:36,260

can't isolate them completely and if

1714

01:20:41,560 --> 01:20:38,750

code can run on these IOT s then you've

1715

01:20:42,010 --> 01:20:41,570

got the possibility for bad things to

1716

01:20:44,290 --> 01:20:42,020

happen

1717

01:20:48,069 --> 01:20:44,300

yeah well address this after we're done

1718

01:20:49,899 --> 01:20:48,079

all of these because you're right not

1719

01:20:52,240 --> 01:20:49,909

only should there be an off switch and

1720

01:20:55,180 --> 01:20:52,250

we'll discuss this further but maybe a

1721

01:20:56,859 --> 01:20:55,190

total disconnect from the IOT could be

1722

01:21:00,280 --> 01:20:56,869

an answer too as well it could still

1723

01:21:03,700 --> 01:21:00,290

learn but not you know remove its you

1724

01:21:05,770 --> 01:21:03,710

know remove its antenna if you will but

1725

01:21:10,089 --> 01:21:05,780

then we have the the other part of this

1726

01:21:12,700 --> 01:21:10,099

is where you have you know the Machine

1727

01:21:15,010 --> 01:21:12,710

side but you have the AI side and if the

1728

01:21:17,109 --> 01:21:15,020

two of them are working together then

1729

01:21:19,750 --> 01:21:17,119

they could possibly figure out how to

1730

01:21:22,660 --> 01:21:19,760

how to get the workarounds how to work

1731

01:21:23,979 --> 01:21:22,670

around humans right and that's where you

1732

01:21:26,709 --> 01:21:23,989

know the more intelligent the AI is

1733

01:21:28,689 --> 01:21:26,719

that's where it configured that kind of

1734

01:21:32,620 --> 01:21:28,699

thing out which is because every

1735

01:21:35,260 --> 01:21:32,630

computer in a sense has a base level of

1736

01:21:38,350 --> 01:21:35,270

codes usually called assembly code you

1737

01:21:40,240 --> 01:21:38,360

know right at the microchip level and so

1738

01:21:41,589 --> 01:21:40,250

if the AI becomes smart enough it can

1739

01:21:44,709 --> 01:21:41,599

figure out that it's pointing in a

1740

01:21:48,640 --> 01:21:44,719

virtual machine and then it can figure

1741

01:21:51,000 --> 01:21:48,650

out how to access the assembly code at

1742

01:21:56,979 --> 01:21:51,010

which point it can do whatever it wants

1743

01:22:00,990 --> 01:21:56,989

that's the scary part because Maday not

1744

01:22:04,800 --> 01:22:01,000

the day after the second the nanosecond

1745

01:22:06,280 --> 01:22:04,810

after singularity is achieved right the

1746

01:22:14,649 --> 01:22:06,290

nanosecond

1747

01:22:21,160 --> 01:22:14,659

ability to learn now runs 24th it

1748

01:22:22,450 --> 01:22:21,170

doesn't have to sleep right and some

1749

01:22:24,220 --> 01:22:22,460

people call like an intelligence

1750

01:22:26,350 --> 01:22:24,230

explosion so people in the field say

1751

01:22:29,680 --> 01:22:26,360

that at the minute it gets to the

1752

01:22:32,109 --> 01:22:29,690

singularity it then redesigns itself and

1753

01:22:33,580 --> 01:22:32,119

starts designing other physical robot

1754

01:22:35,919 --> 01:22:33,590

it's based on hardware that it can

1755

01:22:37,959 --> 01:22:35,929

control right and it does it very

1756

01:22:39,489 --> 01:22:37,969

quickly like you said I mean again going

1757

01:22:40,989 --> 01:22:39,499

back to science-fiction right with the

1758

01:22:43,089 --> 01:22:40,999

Terminator the famous line was it

1759

01:22:45,669 --> 01:22:43,099

doesn't eat it doesn't sleep that's what

1760

01:22:48,189 --> 01:22:45,679

it does that's all it does right right

1761

01:22:51,189 --> 01:22:48,199

and so you know that that nanosecond

1762

01:22:55,869 --> 01:22:51,199

after the singularity when all bets are

1763

01:22:59,350 --> 01:22:55,879

off not not a couple of years later but

1764

01:23:03,969 --> 01:22:59,360

a week later you would have a very bad

1765

01:23:09,489 --> 01:23:03,979

problem on your hands a planet a planet

1766

01:23:11,589 --> 01:23:09,499

full of super smart Einsteins right that

1767

01:23:13,779 --> 01:23:11,599

don't care about you and they don't need

1768

01:23:17,529 --> 01:23:13,789

food that's a scary thought let's get to

1769

01:23:19,029 --> 01:23:17,539

gate number two we'll set up will pick

1770

01:23:20,500 --> 01:23:19,039

up on gate number two after the break

1771

01:23:23,319 --> 01:23:20,510

we've got a couple of minutes here but

1772

01:23:26,409 --> 01:23:23,329

gate number two a I which can easily

1773

01:23:29,529 --> 01:23:26,419

interface with the physical world take

1774

01:23:31,179 --> 01:23:29,539

us through that right so this is you

1775

01:23:34,509 --> 01:23:31,189

know an important gate and this is one

1776

01:23:36,189 --> 01:23:34,519

that has two parts the first is AI which

1777

01:23:38,409 --> 01:23:36,199

can interface with a physical world and

1778

01:23:40,899 --> 01:23:38,419

the second is when it can interface with

1779

01:23:42,639 --> 01:23:40,909

weapons right that's when we start to

1780

01:23:45,369 --> 01:23:42,649

become worried I mentioned the x-files

1781

01:23:47,399 --> 01:23:45,379

episode earlier right where all the

1782

01:23:51,009 --> 01:23:47,409

different machines were or misbehaving

1783

01:23:53,770 --> 01:23:51,019

today we we have some AI that's

1784

01:23:56,679 --> 01:23:53,780

interacting with the physical world we

1785

01:23:58,270 --> 01:23:56,689

have autonomous cars as a perfect

1786

01:24:00,909 --> 01:23:58,280

example this is why I keep bringing them

1787

01:24:03,040 --> 01:24:00,919

up because the algorithms for autonomous

1788

01:24:06,879 --> 01:24:03,050

cars are now being applied to autonomous

1789

01:24:09,369 --> 01:24:06,889

drones and autonomous planes and whence

1790

01:24:12,100 --> 01:24:09,379

you once you have those you're in a very

1791

01:24:14,709 --> 01:24:12,110

different place once you have AI

1792

01:24:17,469 --> 01:24:14,719

deciding what the drone should do then

1793

01:24:21,279 --> 01:24:17,479

it's really you know not that far of a

1794

01:24:24,189 --> 01:24:21,289

leap for it to be able to actually fire

1795

01:24:26,169 --> 01:24:24,199

those weapons so you know today I

1796

01:24:29,409 --> 01:24:26,179

mentioned the drones earlier that that

1797

01:24:31,029 --> 01:24:29,419

the military uses well who's controlling

1798

01:24:33,759 --> 01:24:31,039

those drones well right now it could be

1799

01:24:35,739 --> 01:24:33,769

somebody at the CIA right who's looking

1800

01:24:37,869 --> 01:24:35,749

at a monitor and their computer with the

1801  
01:24:39,580 --> 01:24:37,879  
joystick and they're controlling you

1802  
01:24:42,310 --> 01:24:39,590  
know whether the drone should fire or

1803  
01:24:44,259 --> 01:24:42,320  
not or you've got some special forces in

1804  
01:24:46,029 --> 01:24:44,269  
the field that are either controlling

1805  
01:24:48,819 --> 01:24:46,039  
the drones from there or they're using

1806  
01:24:52,779 --> 01:24:48,829  
GPS signals to tell the drone exactly

1807  
01:24:55,120 --> 01:24:52,789  
where to go so you know we've got both

1808  
01:24:57,879 --> 01:24:55,130  
AI that's interfacing with the physical

1809  
01:25:00,310 --> 01:24:57,889  
world and we have objects like drones

1810  
01:25:02,649 --> 01:25:00,320  
which have weapons that are attached to

1811  
01:25:04,540 --> 01:25:02,659  
them now all in AI would have to do is

1812  
01:25:07,990 --> 01:25:04,550  
intercept that signal right the signal

1813  
01:25:09,939 --> 01:25:08,000

from the CIA to the drone and suddenly

1814

01:25:14,560 --> 01:25:09,949

it has the ability to fire those on

1815

01:25:18,220 --> 01:25:14,570

whatever it decides you know is the

1816

01:25:19,839 --> 01:25:18,230

right target and you know was it I think

1817

01:25:23,319 --> 01:25:19,849

Vladimir Putin was saying that the

1818

01:25:25,359 --> 01:25:23,329

country that has the best AI you know

1819

01:25:27,549 --> 01:25:25,369

we'll basically control the world in the

1820

01:25:30,089 --> 01:25:27,559

future and that's really interesting

1821

01:25:32,950 --> 01:25:30,099

which means that probably most

1822

01:25:35,410 --> 01:25:32,960

militaries at least the bigger ones are

1823

01:25:37,029 --> 01:25:35,420

already experimenting with autonomous

1824

01:25:39,279 --> 01:25:37,039

weapons systems right

1825

01:25:41,009 --> 01:25:39,289

so that has gate number two gate number

1826

01:25:43,180 --> 01:25:41,019

two I think is one of the first to being

1827

01:25:44,799 --> 01:25:43,190

opened actually gate number one's a

1828

01:25:46,299 --> 01:25:44,809

little bit harder because you have to

1829

01:25:49,419 --> 01:25:46,309

have general purpose AI but gate number

1830

01:25:51,700 --> 01:25:49,429

two is not that hard and the IOT being

1831

01:25:55,839 --> 01:25:51,710

out there makes it much more possible

1832

01:25:57,310 --> 01:25:55,849

for this to happen and you know I also

1833

01:25:59,649 --> 01:25:57,320

have some pictures in the article of

1834

01:26:02,470 --> 01:25:59,659

some of the Boston Dynamics robots which

1835

01:26:04,870 --> 01:26:02,480

some of you may have seen videos of it

1836

01:26:06,520 --> 01:26:04,880

looks like a dog it's got four legs but

1837

01:26:07,660 --> 01:26:06,530

there are different versions with you

1838

01:26:09,609 --> 01:26:07,670

know we talked about you talked about

1839

01:26:12,189 --> 01:26:09,619

octopuses earlier right you could

1840

01:26:15,009 --> 01:26:12,199

imagine eight-legged versions that can

1841

01:26:17,169 --> 01:26:15,019

basically you know traverse any kind of

1842

01:26:19,779 --> 01:26:17,179

terrain and and if you watch the videos

1843

01:26:21,069 --> 01:26:19,789

for this the big dog you see it kind of

1844

01:26:23,259 --> 01:26:21,079

going up steps and going through

1845

01:26:24,609 --> 01:26:23,269

hallways and you can see videos where

1846

01:26:26,979 --> 01:26:24,619

it's kind of looking at what's in front

1847

01:26:29,319 --> 01:26:26,989

of it and it's making decisions about

1848

01:26:32,799 --> 01:26:29,329

which direction to go or which direction

1849

01:26:36,459 --> 01:26:32,809

not to go did you see the episode of

1850

01:26:38,410 --> 01:26:36,469

black mirror with those dogs you know

1851

01:26:41,859 --> 01:26:38,420

I've heard about it I haven't seen it

1852

01:26:46,569 --> 01:26:41,869

it's identical to the to the dynamics

1853

01:26:49,390 --> 01:26:46,579

dog is yellow but there's still the same

1854

01:26:52,919 --> 01:26:49,400

face the same front the same sensors and

1855

01:26:56,890 --> 01:26:52,929

the same frightening capabilities there

1856

01:26:59,209 --> 01:26:56,900

but now I've got to take a break but

1857

01:27:02,600 --> 01:26:59,219

this is think about this

1858

01:27:04,160 --> 01:27:02,610

if you are a bad guy out there in a

1859

01:27:06,439 --> 01:27:04,170

military situation so let's say you're

1860

01:27:09,830 --> 01:27:06,449

Isis Emir in you know some village and

1861

01:27:11,689 --> 01:27:09,840

you see some troops coming at you well

1862

01:27:14,479 --> 01:27:11,699

you know that those are troops and you

1863

01:27:18,760 --> 01:27:14,489

can shoot at the troops with your gun

1864

01:27:21,760 --> 01:27:18,770

but imagine a hundred little drones

1865

01:27:24,229 --> 01:27:21,770

coming at you with facial recognition

1866

01:27:25,670 --> 01:27:24,239

right that's right right and some of

1867

01:27:27,560 --> 01:27:25,680

these draw and you know something I

1868

01:27:29,240 --> 01:27:27,570

might make mistakes at times is yeah

1869

01:27:31,670 --> 01:27:29,250

there's nothing you can do that's when

1870

01:27:34,939 --> 01:27:31,680

you drop and run you just drop your gun

1871

01:27:38,240 --> 01:27:34,949

and run but take that same scenario with

1872

01:27:39,740 --> 01:27:38,250

that facial recognition in a crowd now

1873

01:27:41,780 --> 01:27:39,750

you've got a bad actor in a crowd

1874

01:27:43,459 --> 01:27:41,790

they've identified somebody at a rock

1875

01:27:46,459 --> 01:27:43,469

concert that is going to attend a rock

1876

01:27:49,850 --> 01:27:46,469

concert and go and do something and and

1877

01:27:51,920 --> 01:27:49,860

take out the crowd you know take out one

1878

01:27:55,550 --> 01:27:51,930

single guy in a crowd with facial

1879

01:27:58,820 --> 01:27:55,560

recognition we are right on the edge of

1880

01:28:02,390 --> 01:27:58,830

that being a possibility and if that

1881

01:28:04,640 --> 01:28:02,400

goes into the wrong hands now we've got

1882

01:28:06,950 --> 01:28:04,650

a really bad like you said if something

1883

01:28:09,490 --> 01:28:06,960

wants to take over the system it

1884

01:28:13,550 --> 01:28:09,500

certainly can and you could input any

1885

01:28:15,200 --> 01:28:13,560

photograph right that's right and you

1886

01:28:18,470 --> 01:28:15,210

know the future of assassination is

1887

01:28:20,900 --> 01:28:18,480

really going to be these drones you know

1888

01:28:23,209 --> 01:28:20,910

that are out there killing people rather

1889

01:28:26,300 --> 01:28:23,219

than snipers necessarily because they

1890

01:28:28,100 --> 01:28:26,310

can go anywhere and you know you don't

1891

01:28:31,880 --> 01:28:28,110

have to put you don't have to have send

1892

01:28:34,700 --> 01:28:31,890

troops out specifically so the key is if

1893

01:28:36,050 --> 01:28:34,710

the machine can make that decision or

1894

01:28:38,300 --> 01:28:36,060

it's the human that has to make the

1895

01:28:41,030 --> 01:28:38,310

decision right I mean there was a case

1896

01:28:42,560 --> 01:28:41,040

where in the Soviet Union where the

1897

01:28:44,270 --> 01:28:42,570

radar said there were five missiles

1898

01:28:46,880 --> 01:28:44,280

coming from America and they were

1899

01:28:49,189 --> 01:28:46,890

supposed to fire their nuclear rockets

1900

01:28:51,890 --> 01:28:49,199

if missiles if that happened and there

1901

01:28:53,630 --> 01:28:51,900

was an operator of the station who

1902

01:28:56,300 --> 01:28:53,640

looked at it and he didn't believe that

1903

01:28:59,060 --> 01:28:56,310

the US would fire only five five

1904

01:29:00,560 --> 01:28:59,070

missiles if it was going to do an actual

1905

01:29:02,660 --> 01:29:00,570

first strike and so he didn't tell his

1906

01:29:04,390 --> 01:29:02,670

superiors about it turned out it was a

1907

01:29:06,740 --> 01:29:04,400

mistake in the sensors and somehow

1908

01:29:08,360 --> 01:29:06,750

sunlight bouncing off certain things

1909

01:29:10,610 --> 01:29:08,370

actually made the radar I think there

1910

01:29:11,870 --> 01:29:10,620

were five missiles coming from Alaska to

1911

01:29:12,949 --> 01:29:11,880

the Soviet Union it was a good thing he

1912

01:29:14,479 --> 01:29:12,959

had that human judgment

1913

01:29:16,189 --> 01:29:14,489

and so if you don't have that human

1914

01:29:17,689 --> 01:29:16,199

judgment in there you know the

1915

01:29:21,259 --> 01:29:17,699

possibility for mistakes

1916

01:29:23,209 --> 01:29:21,269

is is really high and we have to we have

1917

01:29:25,580 --> 01:29:23,219

to constantly think about it in those

1918

01:29:27,799 --> 01:29:25,590

terms because if it would have been AI

1919

01:29:29,719 --> 01:29:27,809

making that decision you and I wouldn't

1920

01:29:31,489 --> 01:29:29,729

be here on the radio right now this is

1921

01:29:33,199 --> 01:29:31,499

fade to black and that's the truth

1922

01:29:43,570 --> 01:29:33,209

stayed to black our guest tonight R is

1923

01:29:43,580 --> 01:29:53,370

[Music]

1924

01:29:59,580 --> 01:29:56,549

way out here we listen to Jimmy Church

1925

01:30:02,080 --> 01:29:59,590

you're listening to faint and black

1926

01:30:04,930 --> 01:30:02,090

always on the edge of the hottest

1927

01:30:05,410 --> 01:30:04,940

alternative talk chilly church with fade

1928

01:30:24,970 --> 01:30:05,420

to black

1929

01:30:28,689 --> 01:30:24,980

stay GRA radio.com hurricanes

1930

01:30:30,430 --> 01:30:28,699

earthquakes wildfires this year we've

1931

01:30:33,250 --> 01:30:30,440

experienced more than our fair share

1932

01:30:35,709 --> 01:30:33,260

this is Jimmy Church a fade to black and

1933

01:30:37,930 --> 01:30:35,719

last month I decided to make sure my

1934

01:30:40,089 --> 01:30:37,940

family does not have to worry about food

1935

01:30:43,810 --> 01:30:40,099

should we get caught in a real emergency

1936

01:30:45,729 --> 01:30:43,820

situation introducing Humana a healthy

1937

01:30:47,530 --> 01:30:45,739

storable product that tastes so good

1938

01:30:49,330 --> 01:30:47,540

that you'll want to eat it every day

1939

01:30:52,060 --> 01:30:49,340

instead of just during those times of

1940

01:30:55,479 --> 01:30:52,070

duress all new manna products have a 25

1941

01:30:57,879 --> 01:30:55,489

year shelf life our msg and GMO free no

1942

01:31:00,040 --> 01:30:57,889

preservatives and are made in America

1943

01:31:02,049 --> 01:31:00,050

with the new manna pack in your home

1944

01:31:04,569 --> 01:31:02,059

you'll be able to sleep at night knowing

1945

01:31:07,359 --> 01:31:04,579

that you've protected your family not

1946

01:31:09,939 --> 01:31:07,369

only have I tasted and tested I own it

1947

01:31:11,649 --> 01:31:09,949

now you can too just click on the new

1948

01:31:13,990 --> 01:31:11,659

manna banner on Jimmy Church radio.com

1949

01:31:16,450 --> 01:31:14,000

and use the promo code Jimmy when you

1950

01:31:18,100 --> 01:31:16,460

order in addition to a discount we'll

1951

01:31:22,540 --> 01:31:18,110

send you an autograph fade to black

1952

01:31:24,430 --> 01:31:22,550

t-shirt seriously gobekli tepe do you

1953

01:31:26,439 --> 01:31:24,440

worry a lot whether you're a college

1954

01:31:28,899 --> 01:31:26,449

student busy professional parent or

1955

01:31:30,580 --> 01:31:28,909

grandparent ongoing stress and elevated

1956

01:31:32,950 --> 01:31:30,590

levels of the stress hormone cortisol

1957

01:31:33,520 --> 01:31:32,960

can rob your memory your health and your

1958

01:31:35,709 --> 01:31:33,530

future

1959

01:31:37,600 --> 01:31:35,719

now you can combat the effects of stress

1960

01:31:39,700 --> 01:31:37,610

and anxiety while improving your memory

1961

01:31:41,799 --> 01:31:39,710

and recall at the same time with the

1962

01:31:43,569 --> 01:31:41,809

dietary supplement calm and clever

1963

01:31:45,700 --> 01:31:43,579

studies showed that the ingredients in

1964

01:31:47,859 --> 01:31:45,710

common clever reduce cortisol by as much

1965

01:31:49,839 --> 01:31:47,869

as 30 percent in one to two weeks

1966

01:31:52,780 --> 01:31:49,849

call 1-800 seven five eight eight seven

1967

01:31:56,560 --> 01:31:52,790

four six or calm and clever calm

1968

01:32:04,270 --> 01:31:56,570

you listen to us and we listen to you so

1969

01:32:06,550 --> 01:32:04,280

does the CIA de GRA radio.com hi folks

1970

01:32:08,050 --> 01:32:06,560

what can I say without making claims

1971

01:32:09,760 --> 01:32:08,060

seaweedy is truly the buzzword for

1972

01:32:11,710 --> 01:32:09,770

health what does it do government

1973

01:32:13,690 --> 01:32:11,720

institutions will not allow me to say

1974

01:32:16,570 --> 01:32:13,700

what this wonderful oil does for us but

1975

01:32:19,240 --> 01:32:16,580

I can say it's non-gmo and organic I can

1976

01:32:21,130 --> 01:32:19,250

say it's point zero zero three THC which

1977

01:32:23,440 --> 01:32:21,140

in plain English means you won't get

1978

01:32:25,480 --> 01:32:23,450

high there are those that want to squash

1979

01:32:27,310 --> 01:32:25,490

your freedom to buy natural products

1980

01:32:29,320 --> 01:32:27,320

fight back with the purchase power in

1981

01:32:31,450 --> 01:32:29,330

the end it is you that takes care of

1982

01:32:36,100 --> 01:32:31,460

your health go to ancient life oil calm

1983

01:32:37,900 --> 01:32:36,110

one more time ancient life oil calm you

1984

01:32:39,880 --> 01:32:37,910

are listening to fade to black with

1985

01:32:44,650 --> 01:32:39,890

Jamie Church on the game change in

1986

01:32:46,720 --> 01:32:44,660

network hi I'm Lisa Vance you're

1987

01:32:49,660 --> 01:32:46,730

listening to Jimmy Church this is a

1988

01:32:53,520 --> 01:32:49,670

revolution the revolution will not be

1989

01:32:57,950 --> 01:32:53,530

televised the revolution is on radio

1990

01:32:57,960 --> 01:33:37,120

[Music]

1991

01:33:42,260 --> 01:33:40,640

welcome back fade to black I'm your host

1992

01:33:45,320 --> 01:33:42,270

Jimmy Church I guess Annette R is Burke

1993

01:33:49,250 --> 01:33:45,330

and we are talking about his article

1994

01:33:50,600 --> 01:33:49,260

recently published at hacker noon we're

1995

01:33:52,550 --> 01:33:50,610

gonna get it up there and on stellar

1996

01:33:55,070 --> 01:33:52,560

here in just a second but it's called

1997

01:34:00,050 --> 01:33:55,080

the road to killer AI ml plus blockchain

1998

01:34:05,150 --> 01:34:00,060

plus io t plus drones equals Skynet yeah

1999

01:34:06,500 --> 01:34:05,160

Riz the next gate and we're gonna get

2000

01:34:08,420 --> 01:34:06,510

through all of this because we have to

2001

01:34:10,790 --> 01:34:08,430

go back and and and talk about all of

2002

01:34:12,860 --> 01:34:10,800

these implications and and continue to

2003

01:34:15,920 --> 01:34:12,870

break this down it's fascinating the

2004

01:34:19,160 --> 01:34:15,930

gate number three I've talked about so

2005

01:34:21,770 --> 01:34:19,170

much and I'm glad that you pointed this

2006

01:34:23,870 --> 01:34:21,780

out as probably being the most important

2007

01:34:26,390 --> 01:34:23,880

gate number one which is the off switch

2008

01:34:30,230 --> 01:34:26,400

we'll get to that in a second but how

2009

01:34:34,220 --> 01:34:30,240

has the hacker noon community responded

2010

01:34:36,130 --> 01:34:34,230

to this article well you know it's

2011

01:34:39,940 --> 01:34:36,140

gotten a lot of interesting responses

2012

01:34:43,940 --> 01:34:39,950

and I think there's a lot of enthusiasm

2013

01:34:46,970 --> 01:34:43,950

about AI right now in the kind of the

2014

01:34:49,340 --> 01:34:46,980

technical community but there have been

2015

01:34:51,080 --> 01:34:49,350

you know a lot of prominent folks you

2016

01:34:52,850 --> 01:34:51,090

know ranging from Stephen Hawking who

2017

01:34:54,890 --> 01:34:52,860

passed away recently talk on musk saying

2018

01:34:57,320 --> 01:34:54,900

that AI could be the biggest existential

2019

01:34:59,210 --> 01:34:57,330

threat so I think many people are aware

2020

01:35:00,860 --> 01:34:59,220

of it well you know what I tried to do

2021

01:35:03,410 --> 01:35:00,870

in this article is to say how do we get

2022

01:35:06,380 --> 01:35:03,420

there from here and not to provide a

2023

01:35:08,270 --> 01:35:06,390

road map but really to for us to see the

2024

01:35:10,430 --> 01:35:08,280

signposts along the way that might get

2025

01:35:12,230 --> 01:35:10,440

us to be worried so yeah I've had a lot

2026  
01:35:14,060 --> 01:35:12,240  
of a lot of good responses you know to

2027  
01:35:17,780 --> 01:35:14,070  
the article well you know the hackers

2028  
01:35:20,930 --> 01:35:17,790  
out there of all forms and developers

2029  
01:35:23,420 --> 01:35:20,940  
and coders and and that community they

2030  
01:35:26,060 --> 01:35:23,430  
they discuss these implications all the

2031  
01:35:29,240 --> 01:35:26,070  
time and certainly think about it but

2032  
01:35:31,400 --> 01:35:29,250  
getting it out there globally to discuss

2033  
01:35:33,740 --> 01:35:31,410  
this as something that it really needs

2034  
01:35:35,630 --> 01:35:33,750  
to be addressed and I and I don't think

2035  
01:35:37,610 --> 01:35:35,640  
that it is talked about enough and and

2036  
01:35:39,830 --> 01:35:37,620  
as long as it doesn't interfere with

2037  
01:35:41,840 --> 01:35:39,840  
somebody's life right now they tend to

2038  
01:35:44,690 --> 01:35:41,850

ignore it and add that's a scary thought

2039

01:35:47,390 --> 01:35:44,700

for me and I think you know that's

2040

01:35:49,520 --> 01:35:47,400

generally true of technical people and

2041

01:35:52,250 --> 01:35:49,530

scientists right going back to

2042

01:35:54,470 --> 01:35:52,260

the development of the atomic bomb right

2043

01:35:56,150 --> 01:35:54,480

I mean they were just focused yeah they

2044

01:35:58,730 --> 01:35:56,160

had the Manhattan Project they had that

2045

01:36:00,590 --> 01:35:58,740

place up in Los Alamos where for two

2046

01:36:03,080 --> 01:36:00,600

years you know the scientists were

2047

01:36:05,570 --> 01:36:03,090

focused and engineers on one thing which

2048

01:36:07,370 --> 01:36:05,580

is how do we take the theory of atomic

2049

01:36:09,860 --> 01:36:07,380

fission and make a bomb and it wasn't

2050

01:36:13,490 --> 01:36:09,870

until they actually you know had a

2051  
01:36:16,040 --> 01:36:13,500  
working prototype which they exploded at

2052  
01:36:18,110 --> 01:36:16,050  
Trinity in New Mexico that they really

2053  
01:36:20,630 --> 01:36:18,120  
started to wonder about what they had

2054  
01:36:22,640 --> 01:36:20,640  
done right you have the famous line

2055  
01:36:25,100 --> 01:36:22,650  
where Robert Oppenheimer who was the

2056  
01:36:26,840 --> 01:36:25,110  
head of the project you know remembered

2057  
01:36:28,790 --> 01:36:26,850  
from the bhagavad-gita it said I have

2058  
01:36:29,990 --> 01:36:28,800  
become death itself and suddenly he

2059  
01:36:31,700 --> 01:36:30,000  
started to have second thoughts about

2060  
01:36:33,350 --> 01:36:31,710  
what he'd been doing the good thing

2061  
01:36:36,080 --> 01:36:33,360  
about this topic is there's enough

2062  
01:36:38,480 --> 01:36:36,090  
people talking about it now that we may

2063  
01:36:40,790 --> 01:36:38,490

be able to head it off before it happens

2064

01:36:42,800 --> 01:36:40,800

right because it is in the consciousness

2065

01:36:44,540 --> 01:36:42,810

now that this could actually happen the

2066

01:36:46,910 --> 01:36:44,550

AI is getting sophisticated enough to

2067

01:36:50,840 --> 01:36:46,920

get there so I've talked about this off

2068

01:36:52,490 --> 01:36:50,850

switch and you point out here for gate

2069

01:36:56,120 --> 01:36:52,500

number three that right now there isn't

2070

01:36:57,680 --> 01:36:56,130

one yeah and actually before I get to

2071

01:36:59,060 --> 01:36:57,690

that just with gate number two there's

2072

01:37:01,460 --> 01:36:59,070

one other thing I wanted to bring up

2073

01:37:03,670 --> 01:37:01,470

which is so as I said I'm pretty sure

2074

01:37:06,800 --> 01:37:03,680

most militaries are already

2075

01:37:09,050 --> 01:37:06,810

experimenting with autonomous weapons

2076

01:37:10,460 --> 01:37:09,060

autonomous killing machines even if they

2077

01:37:13,160 --> 01:37:10,470

haven't rolled it out because they're

2078

01:37:15,200 --> 01:37:13,170

experimenting in a very specific way you

2079

01:37:18,140 --> 01:37:15,210

know I also talked about how machines

2080

01:37:21,800 --> 01:37:18,150

were machine learning was very specific

2081

01:37:24,110 --> 01:37:21,810

tasks and they could beat humans at some

2082

01:37:26,090 --> 01:37:24,120

games well something happened recently

2083

01:37:28,640 --> 01:37:26,100

and this is Elon Musk's open AI

2084

01:37:30,650 --> 01:37:28,650

initiative where they actually had the

2085

01:37:32,960 --> 01:37:30,660

Machine play a video game

2086

01:37:35,060 --> 01:37:32,970

so now we're not talking about chess or

2087

01:37:37,820 --> 01:37:35,070

physical games we're talking about a

2088

01:37:40,220 --> 01:37:37,830

video game like dota 2 and I don't know

2089

01:37:42,260 --> 01:37:40,230

if any of your listeners know you know

2090

01:37:44,890 --> 01:37:42,270

either dota 2 or counter-strike or

2091

01:37:47,300 --> 01:37:44,900

League of Legends these are very popular

2092

01:37:49,310 --> 01:37:47,310

eSports games where people compete

2093

01:37:51,310 --> 01:37:49,320

against each other by playing these

2094

01:37:53,000 --> 01:37:51,320

video games and in these games you're

2095

01:37:56,120 --> 01:37:53,010

you're like a wizard

2096

01:37:58,430 --> 01:37:56,130

you're like a sorcerer a thief a

2097

01:38:01,790 --> 01:37:58,440

barbarian and you're trying to kill the

2098

01:38:02,480 --> 01:38:01,800

other team of five oh and so turns out

2099

01:38:03,270 --> 01:38:02,490

that AI

2100

01:38:05,279 --> 01:38:03,280

can play

2101

01:38:07,680 --> 01:38:05,289

those games as well if not better than

2102

01:38:09,479 --> 01:38:07,690

humans because of the response time

2103

01:38:11,399 --> 01:38:09,489

right so they can have a response time

2104

01:38:13,260 --> 01:38:11,409

that we really can't have as humans and

2105

01:38:16,799 --> 01:38:13,270

so they were able to beat the best dota

2106

01:38:18,930 --> 01:38:16,809

2 players so this is a case where an AI

2107

01:38:20,760 --> 01:38:18,940

a computer program is playing a video

2108

01:38:22,979 --> 01:38:20,770

game which is a computer generated game

2109

01:38:25,319 --> 01:38:22,989

with graphics on the strain it's looking

2110

01:38:28,649 --> 01:38:25,329

at the graphics and it's using machine

2111

01:38:30,600 --> 01:38:28,659

vision to figure out okay this is a

2112

01:38:33,240 --> 01:38:30,610

character this is a character this is a

2113

01:38:35,250 --> 01:38:33,250

background object and so we've talked

2114

01:38:37,290 --> 01:38:35,260

about machine vision being used in the

2115

01:38:38,490 --> 01:38:37,300

real world by autonomous cars for

2116

01:38:40,500 --> 01:38:38,500

frigging out you know when they should

2117

01:38:41,879 --> 01:38:40,510

turn and when they should stop but this

2118

01:38:43,859 --> 01:38:41,889

is interesting because it's machine

2119

01:38:46,589 --> 01:38:43,869

vision in a computer program itself so

2120

01:38:48,359 --> 01:38:46,599

it's a computer-generated world and

2121

01:38:51,450 --> 01:38:48,369

they're very effective now anyone who's

2122

01:38:53,129 --> 01:38:51,460

seen counter-strike as a game of Counter

2123

01:38:55,109 --> 01:38:53,139

Strike global Offensive you know you've

2124

01:38:57,330 --> 01:38:55,119

got these military guys in kind of an

2125

01:39:00,270 --> 01:38:57,340

Iraq like situation shooting at each

2126  
01:39:02,490 --> 01:39:00,280  
other well if the AI is able to direct

2127  
01:39:04,140 --> 01:39:02,500  
those virtual guns so well at and

2128  
01:39:08,490 --> 01:39:04,150  
recognize which are humans and which

2129  
01:39:11,490 --> 01:39:08,500  
aren't it's not a far leap for to look

2130  
01:39:12,660 --> 01:39:11,500  
at the images coming from drones or that

2131  
01:39:15,029 --> 01:39:12,670  
are in the battlefield and figure out

2132  
01:39:16,379 --> 01:39:15,039  
what our characters what our people what

2133  
01:39:17,850 --> 01:39:16,389  
our not and start shooting at them it's

2134  
01:39:20,279 --> 01:39:17,860  
the same kind of mechanic

2135  
01:39:23,100 --> 01:39:20,289  
so really gate number two is worrisome

2136  
01:39:24,270 --> 01:39:23,110  
because we're pretty much there we will

2137  
01:39:28,740 --> 01:39:24,280  
be within a few years

2138  
01:39:30,299 --> 01:39:28,750

yeah dota 2 is cool by the way yeah it's

2139

01:39:31,680 --> 01:39:30,309

a cool game but it's interesting that

2140

01:39:34,560 --> 01:39:31,690

you know the machines can learn to play

2141

01:39:37,049 --> 01:39:34,570

it just by looking at the visuals and

2142

01:39:39,899 --> 01:39:37,059

now what's happening yes me and so are

2143

01:39:42,169 --> 01:39:39,909

they when we're talking about this is

2144

01:39:45,029 --> 01:39:42,179

are they using the controller

2145

01:39:48,510 --> 01:39:45,039

electronically or is there a robot hand

2146

01:39:50,549 --> 01:39:48,520

controlling the controller I probably

2147

01:39:52,890 --> 01:39:50,559

they're they're not using a robot hand

2148

01:39:55,109 --> 01:39:52,900

that right has software algorithm right

2149

01:39:57,720 --> 01:39:55,119

yeah give like move the cursor around on

2150

01:39:59,700 --> 01:39:57,730

the screen right so you can kind of you

2151  
01:40:01,140 --> 01:39:59,710  
can take over the input midstream and

2152  
01:40:02,250 --> 01:40:01,150  
it's the same kind of thing that I

2153  
01:40:04,620 --> 01:40:02,260  
talked about earlier where you have the

2154  
01:40:06,419 --> 01:40:04,630  
CIA analysts operating a drone with a

2155  
01:40:08,729 --> 01:40:06,429  
joystick sending a signal to the drone

2156  
01:40:10,649 --> 01:40:08,739  
they would just cut in the middle of

2157  
01:40:11,879 --> 01:40:10,659  
that and send the signal and not have to

2158  
01:40:13,820 --> 01:40:11,889  
worry about the physical yeah and

2159  
01:40:17,780 --> 01:40:13,830  
there's also the lag time

2160  
01:40:20,150 --> 01:40:17,790  
of engaging a button or moving you know

2161  
01:40:23,780 --> 01:40:20,160  
the joystick there's a lag time there

2162  
01:40:26,240 --> 01:40:23,790  
and electronically that you're limited

2163  
01:40:29,780 --> 01:40:26,250

to right but if you are making the

2164

01:40:32,570 --> 01:40:29,790

electronic connection that you're

2165

01:40:34,640 --> 01:40:32,580

engaging the switch on or the button but

2166

01:40:36,770 --> 01:40:34,650

that is switched electronically in

2167

01:40:38,720 --> 01:40:36,780

software there's no way you could beat

2168

01:40:47,720 --> 01:40:38,730

the machine the machine would just kick

2169

01:40:53,120 --> 01:40:47,730

your ass it would speed a light response

2170

01:40:54,770 --> 01:40:53,130

time wow that's a crazy thought so ok so

2171

01:41:00,890 --> 01:40:54,780

yeah that's exactly right

2172

01:41:02,900 --> 01:41:00,900

and when DARPA right now addressing this

2173

01:41:08,660 --> 01:41:02,910

and then we'll move on to the off switch

2174

01:41:10,760 --> 01:41:08,670

DARPA just released not too long ago one

2175

01:41:17,060 --> 01:41:10,770

of their projects which is a missile

2176  
01:41:19,730 --> 01:41:17,070  
swarm right so you don't have what's you

2177  
01:41:22,280 --> 01:41:19,740  
don't have one Tomahawk missile that's

2178  
01:41:25,610 --> 01:41:22,290  
intelligent no you have a hundred

2179  
01:41:29,380 --> 01:41:25,620  
smaller versions of it that just stay on

2180  
01:41:33,680 --> 01:41:29,390  
theater and they wait for something to

2181  
01:41:35,570 --> 01:41:33,690  
attack intelligently that there's a

2182  
01:41:38,450 --> 01:41:35,580  
hundred of them up there instead of one

2183  
01:41:40,820 --> 01:41:38,460  
big one and they just cruise around and

2184  
01:41:42,710 --> 01:41:40,830  
and wait that's a scary and that's

2185  
01:41:45,980 --> 01:41:42,720  
that's what they are working on right

2186  
01:41:48,320 --> 01:41:45,990  
now and looking for deployment of this

2187  
01:41:52,640 --> 01:41:48,330  
in 2020 and this is we're halfway

2188  
01:41:55,330 --> 01:41:52,650

through 20 years and when you've got

2189

01:41:59,000 --> 01:41:55,340

swarms like that right that are all

2190

01:42:00,740 --> 01:41:59,010

attacking now you need an AI in response

2191

01:42:04,220 --> 01:42:00,750

so what we're really talking about is an

2192

01:42:05,990 --> 01:42:04,230

AI arms race in a way right so there's

2193

01:42:07,580 --> 01:42:06,000

the connection to the physical objects

2194

01:42:09,340 --> 01:42:07,590

but then there's the response time of

2195

01:42:14,780 --> 01:42:09,350

people controlling those objects and

2196

01:42:16,100 --> 01:42:14,790

already you know on a lot of destroyer

2197

01:42:18,680 --> 01:42:16,110

u.s. warships

2198

01:42:20,840 --> 01:42:18,690

you know there are anti-missile systems

2199

01:42:22,820 --> 01:42:20,850

that are scanning the radar and firing

2200

01:42:25,070 --> 01:42:22,830

automatically but you still need some

2201  
01:42:26,360 --> 01:42:25,080  
human approval but once you get to the

2202  
01:42:27,649 --> 01:42:26,370  
point where you've got these swarms

2203  
01:42:29,449 --> 01:42:27,659  
attacking

2204  
01:42:32,359 --> 01:42:29,459  
you know the only thing that can respond

2205  
01:42:33,709 --> 01:42:32,369  
is AI so now the other side has to have

2206  
01:42:35,899 --> 01:42:33,719  
better AI and then you have to have

2207  
01:42:38,120 --> 01:42:35,909  
better AI and then suddenly you're in an

2208  
01:42:39,529 --> 01:42:38,130  
arms race and that's where it becomes

2209  
01:42:40,819 --> 01:42:39,539  
scary I mean I think we're still a

2210  
01:42:42,830 --> 01:42:40,829  
little ways off from that but it's

2211  
01:42:45,290 --> 01:42:42,840  
coming pretty soon yeah that's that's

2212  
01:42:47,979 --> 01:42:45,300  
the goal I mean that's the goal for for

2213  
01:42:50,839 --> 01:42:47,989

for all of the big State players here

2214

01:42:54,439 --> 01:42:50,849

okay let's discuss this off switch

2215

01:42:56,449 --> 01:42:54,449

ai doesn't have one today well depends

2216

01:42:59,870 --> 01:42:56,459

on where the AI is and this is actually

2217

01:43:04,310 --> 01:42:59,880

I think one of the things that we can

2218

01:43:07,129 --> 01:43:04,320

probably control and you know the idea

2219

01:43:09,140 --> 01:43:07,139

is that if there's no off switch that's

2220

01:43:11,719 --> 01:43:09,150

when we have to worry about this

2221

01:43:13,819 --> 01:43:11,729

nightmare scenario that AI could take

2222

01:43:17,390 --> 01:43:13,829

over because if you just have one robot

2223

01:43:20,259 --> 01:43:17,400

that's really intelligent right we can

2224

01:43:24,919 --> 01:43:20,269

just destroy the robot with a missile

2225

01:43:26,629 --> 01:43:24,929

and so but if it's not just one robot

2226

01:43:28,390 --> 01:43:26,639

and the same thing with I mentioned data

2227

01:43:30,589 --> 01:43:28,400

in Star Trek The Next Generation

2228

01:43:34,100 --> 01:43:30,599

intelligent Android well he had an off

2229

01:43:35,959 --> 01:43:34,110

switch and he actually let the Star Trek

2230

01:43:37,759 --> 01:43:35,969

crew Captain Picard another's turned him

2231

01:43:40,279 --> 01:43:37,769

off from time to time it's a little

2232

01:43:42,649 --> 01:43:40,289

switch in the back of his head you know

2233

01:43:44,899 --> 01:43:42,659

it's not given that an intelligent robot

2234

01:43:47,870 --> 01:43:44,909

would let us turn it off to begin with

2235

01:43:50,540 --> 01:43:47,880

but I think the bigger issue and and I

2236

01:43:54,589 --> 01:43:50,550

use an analogy again from Terminator 3

2237

01:43:57,529 --> 01:43:54,599

rise of the machines right where the the

2238

01:44:00,229 --> 01:43:57,539

young John Connor breaks into this

2239

01:44:02,299 --> 01:44:00,239

military NORAD like base I think in

2240

01:44:03,979 --> 01:44:02,309

Cheyenne Mountain because they're trying

2241

01:44:06,919 --> 01:44:03,989

to turn off Skynet because they know

2242

01:44:09,949 --> 01:44:06,929

that this nightmare scenario is coming

2243

01:44:11,899 --> 01:44:09,959

and so they break in they're able to get

2244

01:44:13,419 --> 01:44:11,909

into the bunker and he wants to turn off

2245

01:44:16,609 --> 01:44:13,429

the computer and that's when he realizes

2246

01:44:19,129 --> 01:44:16,619

right that there is no central computer

2247

01:44:21,199 --> 01:44:19,139

and direct quote is you know by the time

2248

01:44:23,060 --> 01:44:21,209

Skynet became self-aware it had spread

2249

01:44:25,189 --> 01:44:23,070

into millions of computer servers across

2250

01:44:26,689 --> 01:44:25,199

the planet ordinary computer rooms and

2251

01:44:29,120 --> 01:44:26,699

office buildings dorm rooms everywhere

2252

01:44:31,419 --> 01:44:29,130

it was software in cyberspace there was

2253

01:44:35,419 --> 01:44:31,429

no system core it could not be shut down

2254

01:44:37,310 --> 01:44:35,429

well that's happening today and that's

2255

01:44:39,429 --> 01:44:37,320

where blockchain and peer-to-peer

2256

01:44:41,550 --> 01:44:39,439

computing and IOT

2257

01:44:43,170 --> 01:44:41,560

really come into play

2258

01:44:45,420 --> 01:44:43,180

the whole point of the blockchain is

2259

01:44:48,180 --> 01:44:45,430

that nobody can shut it down so you

2260

01:44:50,460 --> 01:44:48,190

can't just take one server offline you'd

2261

01:44:53,310 --> 01:44:50,470

have to take all of them offline which

2262

01:44:55,170 --> 01:44:53,320

is very difficult to do because now we

2263

01:44:57,090 --> 01:44:55,180

have servers running around the world

2264

01:44:58,740 --> 01:44:57,100

now you know I'm actually a proponent of

2265

01:45:00,180 --> 01:44:58,750

blockchain technology so I'm not saying

2266

01:45:02,640 --> 01:45:00,190

that we shouldn't pursue that technology

2267

01:45:06,750 --> 01:45:02,650

I'm just saying that it gives us a

2268

01:45:08,850 --> 01:45:06,760

platform for where the code can run and

2269

01:45:11,130 --> 01:45:08,860

even when Terminator 3 came out the IOT

2270

01:45:13,470 --> 01:45:11,140

was not such a big thing but you know

2271

01:45:15,270 --> 01:45:13,480

another popular show is the show Silicon

2272

01:45:16,890 --> 01:45:15,280

Valley and HBO which I don't know if

2273

01:45:18,780 --> 01:45:16,900

you've seen that show or some of your

2274

01:45:21,210 --> 01:45:18,790

listeners may have all at the end of the

2275

01:45:22,560 --> 01:45:21,220

last season they had like these servers

2276

01:45:24,330 --> 01:45:22,570

where they had a bunch of data and the

2277

01:45:25,560 --> 01:45:24,340

servers were dying and they needed to

2278

01:45:27,930 --> 01:45:25,570

figure out what to do with the data and

2279

01:45:31,260 --> 01:45:27,940

the data got saved by being transmitted

2280

01:45:34,290 --> 01:45:31,270

to 30,000 smart fridges so the data was

2281

01:45:36,420 --> 01:45:34,300

preserved across this network of little

2282

01:45:38,460 --> 01:45:36,430

android-based devices that happened to

2283

01:45:40,590 --> 01:45:38,470

be running inside fridges now I don't

2284

01:45:43,710 --> 01:45:40,600

know how realistic that is today but

2285

01:45:45,990 --> 01:45:43,720

eventually as IOT grows this is where

2286

01:45:49,020 --> 01:45:46,000

blockchain comes in you can have the

2287

01:45:51,740 --> 01:45:49,030

same code running in lots of different

2288

01:45:54,980 --> 01:45:51,750

places and so how do you shut it down

2289

01:45:57,180 --> 01:45:54,990

and even if you shut it down

2290

01:45:59,510 --> 01:45:57,190

who's to say you couldn't just take that

2291

01:46:01,680 --> 01:45:59,520

same code and start it up somewhere else

2292

01:46:03,900 --> 01:46:01,690

and you know one of the other science

2293

01:46:06,540 --> 01:46:03,910

fiction references I make you know early

2294

01:46:09,150 --> 01:46:06,550

early in the article is from the novel

2295

01:46:11,790 --> 01:46:09,160

dune by Frank Herbert which is a you

2296

01:46:13,890 --> 01:46:11,800

know very popular ecologically oriented

2297

01:46:15,980 --> 01:46:13,900

novel that takes place years like

2298

01:46:19,020 --> 01:46:15,990

thousands of years in the future maybe

2299

01:46:21,540 --> 01:46:19,030

10,000 or more years and in that world

2300

01:46:23,580 --> 01:46:21,550

they don't have any computers they have

2301  
01:46:25,620 --> 01:46:23,590  
humans performing the calculations and

2302  
01:46:27,060 --> 01:46:25,630  
stuff and as you read the novel or some

2303  
01:46:28,980 --> 01:46:27,070  
of you may have seen you know the movie

2304  
01:46:30,690 --> 01:46:28,990  
David Lynch had a version of it back in

2305  
01:46:33,420 --> 01:46:30,700  
the 80s and sci-fi channel had another

2306  
01:46:35,910 --> 01:46:33,430  
version but they realized that their

2307  
01:46:39,780 --> 01:46:35,920  
Bible has a rule in there and the rule

2308  
01:46:43,320 --> 01:46:39,790  
is thou shalt not make a machine in the

2309  
01:46:45,990 --> 01:46:43,330  
image of the human mind and why is that

2310  
01:46:48,510 --> 01:46:46,000  
well it turns out in that world

2311  
01:46:51,060 --> 01:46:48,520  
there was this intelligent supercomputer

2312  
01:46:53,190 --> 01:46:51,070  
that basically took over and enslaved

2313  
01:46:55,430 --> 01:46:53,200

all of humanity it's called Omni Eze and

2314

01:46:57,530 --> 01:46:55,440

so eventually there was a

2315

01:46:59,479 --> 01:46:57,540

vault after many thousands of years and

2316

01:47:00,979 --> 01:46:59,489

the humans were able to crush it but

2317

01:47:03,610 --> 01:47:00,989

they didn't just have to crush one they

2318

01:47:07,070 --> 01:47:03,620

had to crush every single copy of

2319

01:47:09,439 --> 01:47:07,080

omnious who's the the AI in this case

2320

01:47:11,540 --> 01:47:09,449

and what they found was that you know

2321

01:47:14,180 --> 01:47:11,550

Omni Eze could spin back up a backed-up

2322

01:47:16,820 --> 01:47:14,190

version of itself so you might have like

2323

01:47:18,439 --> 01:47:16,830

one AI that's very sophisticated let's

2324

01:47:20,950 --> 01:47:18,449

say after the intelligence explosion

2325

01:47:23,180 --> 01:47:20,960

even if you're able to disable that

2326

01:47:25,610 --> 01:47:23,190

anybody can start running you know a

2327

01:47:28,160 --> 01:47:25,620

backup version of that and it won't have

2328

01:47:29,990 --> 01:47:28,170

had the same experiences because it may

2329

01:47:32,689 --> 01:47:30,000

be an older version kind of like a you

2330

01:47:35,510 --> 01:47:32,699

know Microsoft Word 3.0 right versus a

2331

01:47:37,310 --> 01:47:35,520

10 dot o-- version but it still has the

2332

01:47:39,890 --> 01:47:37,320

basic code there that can then then

2333

01:47:42,439 --> 01:47:39,900

learn and so that's where I think these

2334

01:47:44,510 --> 01:47:42,449

other buzzwords in the equation are

2335

01:47:48,080 --> 01:47:44,520

actually kind of important because they

2336

01:47:50,300 --> 01:47:48,090

would enable software to run without an

2337

01:47:53,979 --> 01:47:50,310

off switch and short of destroying all

2338

01:47:56,660 --> 01:47:53,989

the computers and all of the devices and

2339

01:48:00,200 --> 01:47:56,670

getting rid of electricity right there

2340

01:48:02,000 --> 01:48:00,210

would be no way to turn off yeah and

2341

01:48:03,830 --> 01:48:02,010

that's why some people say that you know

2342

01:48:05,930 --> 01:48:03,840

when if you reach the singularity that's

2343

01:48:08,479 --> 01:48:05,940

the last algorithm because after that

2344

01:48:12,020 --> 01:48:08,489

that out will improve itself and could

2345

01:48:17,030 --> 01:48:12,030

potentially take over yeah be worthless

2346

01:48:21,020 --> 01:48:17,040

and the second the the plank second

2347

01:48:23,360 --> 01:48:21,030

after singularity the off switch has

2348

01:48:25,310 --> 01:48:23,370

already been thought about and and

2349

01:48:26,510 --> 01:48:25,320

they've got a workaround so you go and

2350

01:48:28,520 --> 01:48:26,520

you flip the off switch

2351

01:48:30,620 --> 01:48:28,530

oh man that's out of control right and

2352

01:48:34,100 --> 01:48:30,630

you flip the off switch but they've

2353

01:48:37,660 --> 01:48:34,110

already you know AI is as new that you

2354

01:48:43,310 --> 01:48:37,670

were going to do that right

2355

01:48:45,080 --> 01:48:43,320

participation game theory out what the

2356

01:48:47,000 --> 01:48:45,090

possible moves are that's right

2357

01:48:51,560 --> 01:48:47,010

try to block them just like it does in

2358

01:48:54,320 --> 01:48:51,570

chess that's right because what is you

2359

01:48:56,870 --> 01:48:54,330

know the simplest thing that humans

2360

01:48:59,810 --> 01:48:56,880

would think of the you know think of

2361

01:49:03,020 --> 01:48:59,820

first is the off switch and that to a

2362

01:49:04,280 --> 01:49:03,030

sophisticated AI is like you know this

2363

01:49:08,070 --> 01:49:04,290

is the first thing that they're gonna

2364

01:49:10,620 --> 01:49:08,080

think of and so the off switch

2365

01:49:12,630 --> 01:49:10,630

what I'm saying right and so short of an

2366

01:49:14,250 --> 01:49:12,640

electromagnetic pulse right you've

2367

01:49:15,810 --> 01:49:14,260

probably heard of those where somebody

2368

01:49:17,880 --> 01:49:15,820

detonates a nuclear weapon and it takes

2369

01:49:20,760 --> 01:49:17,890

out all the electricity in a certain

2370

01:49:24,210 --> 01:49:20,770

area it would be hard and this is where

2371

01:49:26,310 --> 01:49:24,220

today so today's blockchain ron's code

2372

01:49:27,270 --> 01:49:26,320

in a very limited virtual environment

2373

01:49:30,270 --> 01:49:27,280

kind of like you were talking about

2374

01:49:32,040 --> 01:49:30,280

earlier Jimmy where the code can't

2375

01:49:34,290 --> 01:49:32,050

interact with other things it's just

2376

01:49:37,140 --> 01:49:34,300

running you know within this smart

2377

01:49:39,930 --> 01:49:37,150

contract in this virtual machine so

2378

01:49:41,250 --> 01:49:39,940

we're not quite there but eventually you

2379

01:49:42,990 --> 01:49:41,260

can see it as those virtual machines

2380

01:49:45,570 --> 01:49:43,000

become more sophisticated they will

2381

01:49:47,820 --> 01:49:45,580

allow connections to the Internet not

2382

01:49:50,100 --> 01:49:47,830

just for keeping track of transactions

2383

01:49:52,650 --> 01:49:50,110

but writing really any code so as these

2384

01:49:55,380 --> 01:49:52,660

smart contracts become smarter you know

2385

01:49:57,750 --> 01:49:55,390

that's where we you know blog could see

2386

01:49:59,910 --> 01:49:57,760

blockchain playing a role because the

2387

01:50:01,920 --> 01:49:59,920

whole idea of la chaîne is you have

2388

01:50:03,720 --> 01:50:01,930

multiple copies everywhere all running

2389

01:50:05,850 --> 01:50:03,730

the same code which means it's all

2390

01:50:09,150 --> 01:50:05,860

coming to the same conclusion right or

2391

01:50:10,590 --> 01:50:09,160

or the idea of the blockchain it doesn't

2392

01:50:13,590 --> 01:50:10,600

even have to be the blockchain and since

2393

01:50:16,590 --> 01:50:13,600

the idea the you know what I mean the

2394

01:50:17,880 --> 01:50:16,600

idea of the blockchain and how it is

2395

01:50:21,960 --> 01:50:17,890

applied it wouldn't have to be

2396

01:50:26,460 --> 01:50:21,970

blockchain but now it which takes us

2397

01:50:29,400 --> 01:50:26,470

right into very smooth segue into gate

2398

01:50:32,760 --> 01:50:29,410

number four which is AI which is

2399

01:50:34,230 --> 01:50:32,770

self-aware and prioritizes survival

2400

01:50:37,560 --> 01:50:34,240

because that's exactly what we're

2401  
01:50:39,090 --> 01:50:37,570  
talking about here yeah and so even if

2402  
01:50:42,480 --> 01:50:39,100  
the other gates are opened you know

2403  
01:50:45,210 --> 01:50:42,490  
unless this gate unless the technology

2404  
01:50:46,470 --> 01:50:45,220  
is invented for this gate to open we

2405  
01:50:49,890 --> 01:50:46,480  
probably don't have to worry about a

2406  
01:50:52,860 --> 01:50:49,900  
Skynet type scenario but the problem is

2407  
01:50:55,680 --> 01:50:52,870  
just like in that quote I gave you from

2408  
01:50:58,530 --> 01:50:55,690  
the terminators once it's self-aware it

2409  
01:51:00,240 --> 01:50:58,540  
may be too late at that point because of

2410  
01:51:03,150 --> 01:51:00,250  
the speed at which it does things now

2411  
01:51:06,960 --> 01:51:03,160  
the problem is we don't know how to

2412  
01:51:10,170 --> 01:51:06,970  
define exactly what that means right

2413  
01:51:11,970 --> 01:51:10,180

what is a self-aware machine I mentioned

2414

01:51:13,770 --> 01:51:11,980

alan turing earlier who's one of the

2415

01:51:15,240 --> 01:51:13,780

pioneers of computer science and he

2416

01:51:18,420 --> 01:51:15,250

defined something called the Turing test

2417

01:51:20,910 --> 01:51:18,430

which was that you would interact with a

2418

01:51:21,470 --> 01:51:20,920

machine say he was it was in another

2419

01:51:23,210 --> 01:51:21,480

room

2420

01:51:25,700 --> 01:51:23,220

or it was on a screen like we might have

2421

01:51:28,460 --> 01:51:25,710

today and you would talk to that machine

2422

01:51:30,740 --> 01:51:28,470

and it would give you responses and if

2423

01:51:34,100 --> 01:51:30,750

you couldn't tell the difference between

2424

01:51:35,780 --> 01:51:34,110

a human and a machine in that case then

2425

01:51:38,000 --> 01:51:35,790

that machine would pass the Turing test

2426

01:51:39,470 --> 01:51:38,010

and we're not quite there yet I mean

2427

01:51:41,479 --> 01:51:39,480

you've got these chat BOTS but you can

2428

01:51:42,860 --> 01:51:41,489

kind of tell if you try to chat with

2429

01:51:44,780 --> 01:51:42,870

them you can kind of tell it's a bot

2430

01:51:47,540 --> 01:51:44,790

because they don't react the way that a

2431

01:51:50,630 --> 01:51:47,550

human would react now that that you

2432

01:51:52,550 --> 01:51:50,640

would be able to detect it but there are

2433

01:51:54,470 --> 01:51:52,560

millions out there right now that are

2434

01:51:56,240 --> 01:51:54,480

fighting with chat BOTS right now they

2435

01:51:57,650 --> 01:51:56,250

don't have a clue well that's true and

2436

01:51:59,000 --> 01:51:57,660

they're becoming more sophisticated I

2437

01:52:01,160 --> 01:51:59,010

mean I can usually see the patterns

2438

01:52:03,350 --> 01:52:01,170

right it didn't quite respond to the

2439

01:52:06,410 --> 01:52:03,360

question that I asked or it just zeroed

2440

01:52:08,330 --> 01:52:06,420

in on a specific word and tried to ask

2441

01:52:11,720 --> 01:52:08,340

me and there was an old probably one of

2442

01:52:13,070 --> 01:52:11,730

the first examples of this was a program

2443

01:52:16,430 --> 01:52:13,080

called Eliza I don't know if you ever

2444

01:52:18,770 --> 01:52:16,440

taught that sure way back in the 80s or

2445

01:52:20,870 --> 01:52:18,780

maybe even 70s where it would basically

2446

01:52:22,760 --> 01:52:20,880

act like a psychiatrist right and you

2447

01:52:24,260 --> 01:52:22,770

would say something like oh I had a

2448

01:52:27,110 --> 01:52:24,270

really bad today at work and it would

2449

01:52:29,990 --> 01:52:27,120

reply tell me more about your work right

2450

01:52:31,850 --> 01:52:30,000

so icky off of a specific phrase and

2451

01:52:33,470 --> 01:52:31,860

then it would ask you a question and

2452

01:52:36,200 --> 01:52:33,480

then you would say oh I did this and I

2453

01:52:38,600 --> 01:52:36,210

did that and it might say how did that

2454

01:52:41,180 --> 01:52:38,610

make you feel right so it was a set of

2455

01:52:42,860 --> 01:52:41,190

pre-programmed responses because you

2456

01:52:45,560 --> 01:52:42,870

know natural language processing wasn't

2457

01:52:47,300 --> 01:52:45,570

very sophisticated back then and a lot

2458

01:52:50,120 --> 01:52:47,310

of a lot of these areas have their

2459

01:52:52,670 --> 01:52:50,130

origin in in video games you know video

2460

01:52:55,520 --> 01:52:52,680

games needed to invent NPCs or

2461

01:52:56,990 --> 01:52:55,530

non-player or characters right and so

2462

01:52:58,310 --> 01:52:57,000

they're like chat BOTS and they're

2463

01:53:00,830 --> 01:52:58,320

starting to become more and more

2464

01:53:03,680 --> 01:53:00,840

sophisticated over time the first AI

2465

01:53:07,130 --> 01:53:03,690

that was implemented by anybody not many

2466

01:53:10,070 --> 01:53:07,140

people know this but it was a computer

2467

01:53:12,620 --> 01:53:10,080

built by Professor Claude Shannon at MIT

2468

01:53:14,270 --> 01:53:12,630

in the 50s and what did it do it played

2469

01:53:16,190 --> 01:53:14,280

chess right and so that was the first

2470

01:53:17,840 --> 01:53:16,200

and it was a physical machine and it

2471

01:53:19,040 --> 01:53:17,850

would tell you what moved to make and

2472

01:53:20,660 --> 01:53:19,050

you would actually have to make the move

2473

01:53:23,150 --> 01:53:20,670

on the chess board right and then you

2474

01:53:24,440 --> 01:53:23,160

would program in that you know the other

2475

01:53:26,510 --> 01:53:24,450

move move and then it would figure out

2476

01:53:29,000 --> 01:53:26,520

what to do next so this idea of game

2477

01:53:31,459 --> 01:53:29,010

theory is is is is quite quite relevant

2478

01:53:33,280 --> 01:53:31,469

and quite interesting so natural

2479

01:53:35,299 --> 01:53:33,290

language processing has come a long way

2480

01:53:37,579 --> 01:53:35,309

where's back then it would

2481

01:53:39,859 --> 01:53:37,589

use rules you know now it does a lot of

2482

01:53:41,750 --> 01:53:39,869

statistical analysis of words and looks

2483

01:53:43,609 --> 01:53:41,760

at previous responses and what previous

2484

01:53:45,799 --> 01:53:43,619

people have said and so you know the

2485

01:53:49,369 --> 01:53:45,809

Turing test you know the time is coming

2486

01:53:52,250 --> 01:53:49,379

probably not that far off where I can

2487

01:53:56,479 --> 01:53:52,260

pass the Turing test now but does that

2488

01:53:57,949 --> 01:53:56,489

mean that the AI is self-aware not

2489

01:54:01,939 --> 01:53:57,959

really so I think we need to come up

2490

01:54:05,839 --> 01:54:01,949

with a new test right like the Turing

2491

01:54:07,729 --> 01:54:05,849

test that would say that this AI is

2492

01:54:12,169 --> 01:54:07,739

self-aware I use the example in the

2493

01:54:13,250 --> 01:54:12,179

article of Hal or the Hal 9000 from 2001

2494

01:54:15,529 --> 01:54:13,260

and I'm using a lot of science fiction

2495

01:54:17,719 --> 01:54:15,539

because you know most of these concepts

2496

01:54:19,759 --> 01:54:17,729

are dealing with the future and turns

2497

01:54:22,309 --> 01:54:19,769

out science fiction writers are pretty

2498

01:54:23,629 --> 01:54:22,319

good at that and anticipating you know

2499

01:54:28,089 --> 01:54:23,639

some of the things even when they sound

2500

01:54:30,709 --> 01:54:28,099

odd at the time you know there was a

2501  
01:54:34,009 --> 01:54:30,719  
royal astronomer for example who read

2502  
01:54:35,929 --> 01:54:34,019  
you know Jules Verne's you know journey

2503  
01:54:37,639 --> 01:54:35,939  
to the moon or whatever that was called

2504  
01:54:38,689 --> 01:54:37,649  
and said that's hogwash there's no way

2505  
01:54:40,819 --> 01:54:38,699  
we'll ever be able to get to the moon

2506  
01:54:42,109 --> 01:54:40,829  
because if you add up all the the fuel

2507  
01:54:43,909 --> 01:54:42,119  
that was needed you couldn't get there

2508  
01:54:46,159 --> 01:54:43,919  
right so even scientists aren't very

2509  
01:54:47,929 --> 01:54:46,169  
good at saying what whether science

2510  
01:54:48,500 --> 01:54:47,939  
fiction can become real or not in the

2511  
01:54:51,649 --> 01:54:48,510  
future

2512  
01:54:55,219 --> 01:54:51,659  
is what I found I somebody just posted

2513  
01:54:58,659 --> 01:54:55,229

it it's been up here a few times now you

2514

01:55:02,270 --> 01:54:58,669

know Sophia you know the robot and

2515

01:55:05,209 --> 01:55:02,280

Philip just said I think Sophia could

2516

01:55:08,709 --> 01:55:05,219

pass the Turing test also that was in

2517

01:55:13,069 --> 01:55:08,719

the last episodes of this season of

2518

01:55:15,229 --> 01:55:13,079

Silicon Valley by the way so do you do

2519

01:55:18,770 --> 01:55:15,239

next yeah do you think Sophia could pass

2520

01:55:20,029 --> 01:55:18,780

the Turing test I think it's it's

2521

01:55:23,119 --> 01:55:20,039

getting there I mean I haven't

2522

01:55:25,399 --> 01:55:23,129

interacted with Sophia enough to say

2523

01:55:28,279 --> 01:55:25,409

whether it's gonna pass the Turing test

2524

01:55:31,069 --> 01:55:28,289

but I think you know we're getting close

2525

01:55:34,069 --> 01:55:31,079

I mean I've seen other I mean you've

2526

01:55:36,189 --> 01:55:34,079

seen like robots like or AI like Alexa

2527

01:55:37,939 --> 01:55:36,199

but that's you know not very

2528

01:55:40,069 --> 01:55:37,949

conversational it's really just trying

2529

01:55:41,419 --> 01:55:40,079

to figure out what you're asking and it

2530

01:55:44,000 --> 01:55:41,429

doesn't go that far but I've seen some

2531

01:55:47,299 --> 01:55:44,010

research at the MIT Media Lab you know

2532

01:55:48,950 --> 01:55:47,309

where they spun off I think is Jibo Oh

2533

01:55:50,450 --> 01:55:48,960

was the robot

2534

01:55:52,400 --> 01:55:50,460

but I think the natural language

2535

01:55:53,990 --> 01:55:52,410

processing is getting there I mean I

2536

01:55:55,340 --> 01:55:54,000

have an interactive Sofia to tell you

2537

01:55:58,430 --> 01:55:55,350

whether I could pass the Turing test yet

2538

01:56:01,850 --> 01:55:58,440

but it's probably not that far off

2539

01:56:05,420 --> 01:56:01,860

did Boston Dynamics came out of MIT

2540

01:56:07,370 --> 01:56:05,430

right I believe so

2541

01:56:09,530 --> 01:56:07,380

I don't recall exactly which group they

2542

01:56:11,960 --> 01:56:09,540

were in but and then Google bought them

2543

01:56:12,530 --> 01:56:11,970

for awhile right and then Google sold

2544

01:56:18,170 --> 01:56:12,540

them

2545

01:56:19,820 --> 01:56:18,180

now did you just say wait wait wait I

2546

01:56:22,220 --> 01:56:19,830

got to pump the brakes here did you say

2547

01:56:25,610 --> 01:56:22,230

you haven't interacted with Sophia

2548

01:56:26,330 --> 01:56:25,620

enough to tell I have you interacted

2549

01:56:31,970 --> 01:56:26,340

with Sophia

2550

01:56:33,320 --> 01:56:31,980

I haven't on whether it's close to the

2551

01:56:35,840 --> 01:56:33,330

Turing test or not I just know what

2552

01:56:37,910 --> 01:56:35,850

other people have said about it okay now

2553

01:56:40,550 --> 01:56:37,920

we're gonna take a break and when we

2554

01:56:41,750 --> 01:56:40,560

come back we're gonna put all of this

2555

01:56:44,060 --> 01:56:41,760

together and talk about these

2556

01:56:48,440 --> 01:56:44,070

implications and where we really are

2557

01:56:52,310 --> 01:56:48,450

today I do agree with you when we look

2558

01:56:54,230 --> 01:56:52,320

at a Heinlein or arthur c clarke or any

2559

01:56:56,480 --> 01:56:54,240

of the Roddenberry you know any of these

2560

01:56:58,520 --> 01:56:56,490

great science fiction writers that we

2561

01:57:00,980 --> 01:56:58,530

all enjoyed they all predicted the

2562

01:57:03,170 --> 01:57:00,990

future and we never thought that we

2563

01:57:05,540 --> 01:57:03,180

would get there and you know what you go

2564

01:57:09,080 --> 01:57:05,550

back to Dick Tracy and you go back to

2565

01:57:10,460 --> 01:57:09,090

that watch right that was you never

2566

01:57:16,850 --> 01:57:10,470

gonna happen

2567

01:57:20,510 --> 01:57:16,860

today you know look that we have blown

2568

01:57:23,270 --> 01:57:20,520

past that by light-years so yeah you've

2569

01:57:25,760 --> 01:57:23,280

got FaceTime on your phone FaceTime on

2570

01:57:27,620 --> 01:57:25,770

the phone you know and and you know the

2571

01:57:31,610 --> 01:57:27,630

Star Trek communicator that's an obvious

2572

01:57:33,770 --> 01:57:31,620

thing and an obvious compare comparing

2573

01:57:37,220 --> 01:57:33,780

to two cell phones I get that but it's

2574

01:57:38,990 --> 01:57:37,230

all of that combined certainly the Dick

2575

01:57:40,970 --> 01:57:39,000

Tracy element and everything else but

2576

01:57:45,710 --> 01:57:40,980

who would have thought that we would be

2577

01:57:48,950 --> 01:57:45,720

able to stream movies and FaceTime for

2578

01:57:51,200 --> 01:57:48,960

virtually for free right and it yeah

2579

01:57:52,550 --> 01:57:51,210

it's pretty impressive in some science

2580

01:57:54,860 --> 01:57:52,560

fiction writers more than others you

2581

01:57:56,740 --> 01:57:54,870

know arthur c clarke in particular is is

2582

01:57:59,090 --> 01:57:56,750

is you know he's often credited with

2583

01:58:00,530 --> 01:57:59,100

coming up with the idea although i think

2584

01:58:02,290 --> 01:58:00,540

he more popularized it of the

2585

01:58:04,390 --> 01:58:02,300

communication satellite that's right

2586

01:58:06,459 --> 01:58:04,400

where you'd have a satellite up high

2587

01:58:07,930 --> 01:58:06,469

enough in a geostationary orbit that you

2588

01:58:09,580 --> 01:58:07,940

could bounce signals off it and send it

2589

01:58:11,760 --> 01:58:09,590

to the other side of the earth and just

2590

01:58:14,950 --> 01:58:11,770

as an aside I was in sri lanka

2591

01:58:16,720 --> 01:58:14,960

over the Christmas holidays and that's

2592

01:58:19,299 --> 01:58:16,730

where he lived for the last I don't know

2593

01:58:21,970 --> 01:58:19,309

30 50 years of his life right and turns

2594

01:58:23,290 --> 01:58:21,980

out his office is still there and you

2595

01:58:24,640 --> 01:58:23,300

know my Sherlock and friend who was

2596

01:58:28,780 --> 01:58:24,650

hosting me he was able to talk the

2597

01:58:30,520 --> 01:58:28,790

security guard to letting us in there I

2598

01:58:32,169 --> 01:58:30,530

have a post about you know what I found

2599

01:58:34,030 --> 01:58:32,179

in arthur c clarke Sophos with a bunch

2600

01:58:35,319 --> 01:58:34,040

of pictures if you go to my medium if

2601  
01:58:37,780 --> 01:58:35,329  
you go to hacker noon and just click on

2602  
01:58:39,520 --> 01:58:37,790  
my profile you'll see my articles but

2603  
01:58:41,859 --> 01:58:39,530  
that was a real thrill for me now didn't

2604  
01:58:44,830 --> 01:58:41,869  
he have he had the how from the set

2605  
01:58:46,569 --> 01:58:44,840  
there did he did you see how no I didn't

2606  
01:58:49,330 --> 01:58:46,579  
see how I mean it was more a lot of

2607  
01:58:53,109 --> 01:58:49,340  
books and video tapes and awards that he

2608  
01:58:56,589 --> 01:58:53,119  
had and he had a replica of the monolith

2609  
01:58:59,879 --> 01:58:56,599  
from 2001 that was there that's cool

2610  
01:59:01,959 --> 01:58:59,889  
didn't actually see how there he is

2611  
01:59:06,729 --> 01:59:01,969  
everybody's got their favorite writer

2612  
01:59:10,600 --> 01:59:06,739  
but for me it was arthur c clarke and i

2613  
01:59:15,520 --> 01:59:10,610

would i would just absorb his stuff and

2614

01:59:18,669 --> 01:59:15,530

his rama series is it that needs to be a

2615

01:59:20,950 --> 01:59:18,679

movie it's too complex to turn into one

2616

01:59:23,709 --> 01:59:20,960

but but yeah it really does especially

2617

01:59:25,560 --> 01:59:23,719

with them discovering that that's object

2618

01:59:29,020 --> 01:59:25,570

right passing through the solar system

2619

01:59:31,000 --> 01:59:29,030

that was named with the hawaiian name I

2620

01:59:31,839 --> 01:59:31,010

forget what the name was now no Rama

2621

01:59:36,640 --> 01:59:31,849

Rama

2622

01:59:40,540 --> 01:59:36,650

real life they discovered yes yes yes

2623

01:59:41,979 --> 01:59:40,550

what was that see the thing is we gotta

2624

01:59:45,959 --> 01:59:41,989

take a break right here I don't want to

2625

01:59:49,479 --> 01:59:45,969

mess up the network but was that Rama

2626

01:59:51,879 --> 01:59:49,489

relived it was like here it's actually

2627

01:59:54,580 --> 01:59:51,889

once again first thing I thought the

2628

01:59:58,089 --> 01:59:54,590

first thing I do our guest tonight

2629

02:00:01,419 --> 01:59:58,099

Risberg discussing his newest hacker

2630

02:00:02,610 --> 02:00:01,429

noon article more with rizz right after

2631

02:00:13,759 --> 02:00:02,620

this stay with us

2632

02:00:21,149 --> 02:00:13,769

[Music]

2633

02:00:23,969 --> 02:00:21,159

Jimmy Church radio calm this is kg are a

2634

02:00:24,989 --> 02:00:23,979

digital broadcasting station Salt Lake

2635

02:00:29,250 --> 02:00:24,999

City Utah

2636

02:00:31,379 --> 02:00:29,260

Van Buren Arkansas okay nurse let's get

2637

02:00:33,359 --> 02:00:31,389

this man to the ER stat right away

2638

02:00:36,029 --> 02:00:33,369

doctor we see this every day heart

2639

02:00:38,430 --> 02:00:36,039

attack or angina pain due to blocked and

2640

02:00:40,589 --> 02:00:38,440

clogged arteries chelation can remove

2641

02:00:42,450 --> 02:00:40,599

obstructions or blockages from arteries

2642

02:00:43,439 --> 02:00:42,460

and help avoid painful and expensive

2643

02:00:45,540 --> 02:00:43,449

surgery

2644

02:00:47,459 --> 02:00:45,550

now there's angio prim it's a liquid

2645

02:00:49,739 --> 02:00:47,469

oral chelation product that you take

2646

02:00:51,959 --> 02:00:49,749

with juice you start to feel the results

2647

02:00:53,910 --> 02:00:51,969

fast angio primm increases blood flow

2648

02:00:56,069 --> 02:00:53,920

all over the body and that means more

2649

02:00:58,799 --> 02:00:56,079

energy and strength to take on the day

2650

02:01:00,779 --> 02:00:58,809

with less aches and pains 60 years of

2651  
02:01:03,600 --> 02:01:00,789  
research has gone into chelation and

2652  
02:01:05,939 --> 02:01:03,610  
angio primm is the result a safe and

2653  
02:01:07,620 --> 02:01:05,949  
easy way to unblock your veins and

2654  
02:01:09,750 --> 02:01:07,630  
arteries from buildup that slow

2655  
02:01:11,219 --> 02:01:09,760  
circulation shaping dr. Jones please

2656  
02:01:13,200 --> 02:01:11,229  
report to the emergency room right away

2657  
02:01:15,959 --> 02:01:13,210  
log on now for a special radio offer

2658  
02:01:21,089 --> 02:01:15,969  
from angio primm that's angio prim calm

2659  
02:01:24,989 --> 02:01:21,099  
/ radio a ng IO PRI M angio prim calm /

2660  
02:01:26,759 --> 02:01:24,999  
radio our call 877 8 a 270 221 that's

2661  
02:01:28,489 --> 02:01:26,769  
eight seven seven eight a two seventy

2662  
02:01:31,979 --> 02:01:28,499  
two 21

2663  
02:01:35,640 --> 02:01:31,989

so you love talk radio then you'll love

2664

02:01:38,489 --> 02:01:35,650

talk stream live.com talk stream live is

2665

02:01:40,739 --> 02:01:38,499

always on 24/7 with the best streaming

2666

02:01:42,810 --> 02:01:40,749

talk shows find your favorite talkers

2667

02:01:45,479 --> 02:01:42,820

and discover some new ones it's free

2668

02:01:46,770 --> 02:01:45,489

readily available online or on the

2669

02:01:48,779 --> 02:01:46,780

smartphone or tablet

2670

02:01:50,850 --> 02:01:48,789

finding your favorite talk shows all in

2671

02:01:54,239 --> 02:01:50,860

one place has gotten a whole lot easier

2672

02:01:56,129 --> 02:01:54,249

just go to talk stream live.com be sure

2673

02:01:59,729 --> 02:01:56,139

to download the free apps from Google

2674

02:02:01,100 --> 02:01:59,739

Play or the itunes app store your

2675

02:02:05,020 --> 02:02:01,110

contact for Guren

2676  
02:02:08,030 --> 02:02:05,030  
and trending topics gay GRA radio.com

2677  
02:02:08,870 --> 02:02:08,040  
what can I say about the most popular T

2678  
02:02:11,090 --> 02:02:08,880  
on the Internet

2679  
02:02:14,899 --> 02:02:11,100  
and what a customers say about life

2680  
02:02:18,109 --> 02:02:14,909  
change T at get the T calm a lot but by

2681  
02:02:20,510 --> 02:02:18,119  
federal law we get the t.com cannot make

2682  
02:02:22,729 --> 02:02:20,520  
claims to how this product can enhance

2683  
02:02:24,790 --> 02:02:22,739  
your health we cannot even post our

2684  
02:02:28,160 --> 02:02:24,800  
testimonies without being in compliance

2685  
02:02:30,649 --> 02:02:28,170  
so how do we get past the hump try our

2686  
02:02:33,770 --> 02:02:30,659  
products that get the T calm and see for

2687  
02:02:36,490 --> 02:02:33,780  
yourself you can send us a testimony but

2688  
02:02:40,430 --> 02:02:36,500

we just can't post it bummer

2689

02:02:42,109 --> 02:02:40,440

our products are GMO free and organic we

2690

02:02:44,479 --> 02:02:42,119

pride ourself in being the best we can

2691

02:02:47,209 --> 02:02:44,489

be and we urge you to take charge of

2692

02:02:49,280 --> 02:02:47,219

your health we're loving you're strong

2693

02:02:51,470 --> 02:02:49,290

and many of our customers have shared

2694

02:02:54,350 --> 02:02:51,480

their successes with friends and family

2695

02:02:59,600 --> 02:02:54,360

protect your colon log on to get the T

2696

02:03:05,720 --> 02:02:59,610

com that's get the t.com get the t.com

2697

02:03:07,700 --> 02:03:05,730

get t.com did you know that when you're

2698

02:03:10,189 --> 02:03:07,710

on the road with limited data or Wi-Fi

2699

02:03:12,109 --> 02:03:10,199

available you can still listen to every

2700

02:03:14,870 --> 02:03:12,119

minute of fade to black by just calling

2701

02:03:17,930 --> 02:03:14,880

six oh five five six two four four eight

2702

02:03:20,419 --> 02:03:17,940

two no smartphone app or internet needed

2703

02:03:23,030 --> 02:03:20,429

it saves your data plan and no extra

2704

02:03:25,850 --> 02:03:23,040

cost if you have unlimited minutes just

2705

02:03:27,979 --> 02:03:25,860

call six oh five five six two four four

2706

02:03:30,709 --> 02:03:27,989

eight two you can listen to me Jimmy

2707

02:03:37,560 --> 02:03:30,719

Church on any phone anytime anywhere

2708

02:03:37,570 --> 02:03:41,609

[Music]

2709

02:03:48,989 --> 02:03:46,359

you wanna know a secret I love ponies I

2710

02:03:51,580 --> 02:03:48,999

really love for this I'm serious I

2711

02:03:55,629 --> 02:03:51,590

couldn't stay sane without poor mr.

2712

02:04:00,729 --> 02:03:55,639

Brooks why fade to black because you

2713

02:04:04,700 --> 02:04:02,570

this is fade to black

2714

02:04:08,390 --> 02:04:04,710

with Jimmy Church on the game changer

2715

02:04:10,770 --> 02:04:08,400

radio network and kgr a the global radio

2716

02:04:23,080 --> 02:04:10,780

alliance

2717

02:04:25,100 --> 02:04:23,090

[Music]

2718

02:04:28,970 --> 02:04:25,110

all right welcome back fade to black

2719

02:04:31,520 --> 02:04:28,980

having those Jimmy Church our guest

2720

02:04:33,860 --> 02:04:31,530

tonight rizz Burke and we're talking

2721

02:04:36,020 --> 02:04:33,870

about his new article over at a hacker

2722

02:04:39,230 --> 02:04:36,030

noon and you've got to check it out it's

2723

02:04:41,420 --> 02:04:39,240

called the road to killer AI and rizz I

2724

02:04:44,000 --> 02:04:41,430

want to lighten lighten things up for

2725

02:04:47,930 --> 02:04:44,010

just a second before we get back into

2726

02:04:50,960 --> 02:04:47,940

this you speaking of killer AI you've

2727

02:04:55,010 --> 02:04:50,970

got you've got another project that you

2728

02:05:02,960 --> 02:04:55,020

are launching called pure light and tell

2729

02:05:07,180 --> 02:05:02,970

us about that rizz did we lose rizz no

2730

02:05:09,680 --> 02:05:07,190

it's still here man don't give me that

2731

02:05:11,630 --> 02:05:09,690

internet-of-things heart attack because

2732

02:05:14,570 --> 02:05:11,640

that's what that was right there sorry I

2733

02:05:16,880 --> 02:05:14,580

had my mute on for a sec okay I'm still

2734

02:05:18,740 --> 02:05:16,890

here yeah I was saying stepping back

2735

02:05:22,010 --> 02:05:18,750

from the doom and gloom of the killer

2736

02:05:24,890 --> 02:05:22,020

eye scenario you know pure light is you

2737

02:05:26,450 --> 02:05:24,900

know a very spiritual project that was

2738

02:05:29,060 --> 02:05:26,460

actually built by my girlfriend Ellen

2739

02:05:31,700 --> 02:05:29,070

McDonough who is a spiritual artist and

2740

02:05:34,040 --> 02:05:31,710

some of her artwork is usually visions

2741

02:05:35,240 --> 02:05:34,050

of Atlantis or pyramids on other planets

2742

02:05:37,910 --> 02:05:35,250

I think a lot of your listeners would

2743

02:05:40,520 --> 02:05:37,920

like it it's at places of light calm if

2744

02:05:42,710 --> 02:05:40,530

anyone's interested in taking a look but

2745

02:05:45,320 --> 02:05:42,720

so you know she had gone through a

2746

02:05:48,050 --> 02:05:45,330

healing journey where Western medicine

2747

02:05:50,120 --> 02:05:48,060

wasn't able to help her and she found

2748

02:05:53,150 --> 02:05:50,130

that there were these energetically

2749

02:05:56,210 --> 02:05:53,160

infused audios out there created by all

2750

02:05:58,370 --> 02:05:56,220

kinds of different healers and you know

2751

02:05:59,510 --> 02:05:58,380

Tesla once said that if you want to

2752

02:06:01,460 --> 02:05:59,520

understand the universe you have to

2753

02:06:03,380 --> 02:06:01,470

understand frequency and vibration and

2754

02:06:04,940 --> 02:06:03,390

so you know there's these different

2755

02:06:06,800 --> 02:06:04,950

healers who have infused different

2756

02:06:08,990 --> 02:06:06,810

frequencies into the audios using their

2757

02:06:11,600 --> 02:06:09,000

own methods some just by intention some

2758

02:06:14,870 --> 02:06:11,610

based on the actual you know the actual

2759

02:06:17,680 --> 02:06:14,880

audio sounds for everything from being

2760

02:06:20,180 --> 02:06:17,690

able to sleep better being able to relax

2761

02:06:22,700 --> 02:06:20,190

being able to unlock abundance in your

2762

02:06:24,740 --> 02:06:22,710

life you know there's even one called

2763

02:06:26,630 --> 02:06:24,750

escaping the matrix which is all about

2764

02:06:29,330 --> 02:06:26,640

realizing that we're in a simulated

2765

02:06:31,010 --> 02:06:29,340

reality which is you know another

2766

02:06:33,080 --> 02:06:31,020

interesting idea if we have time we can

2767

02:06:35,450 --> 02:06:33,090

talk about I know some one of your

2768

02:06:36,979 --> 02:06:35,460

listeners posted philip k dick as

2769

02:06:39,530 --> 02:06:36,989

favorite sci-fi author that was one of

2770

02:06:42,350 --> 02:06:39,540

his you know big ideas as well and so

2771

02:06:44,090 --> 02:06:42,360

pure light app is is in the App Store

2772

02:06:46,310 --> 02:06:44,100

now and the iTunes and it's gonna be

2773

02:06:49,340 --> 02:06:46,320

coming to Android pretty soon and you

2774

02:06:50,990 --> 02:06:49,350

can go to pure light audio calm and

2775

02:06:53,570 --> 02:06:51,000

check out all the different healers from

2776  
02:06:55,790 --> 02:06:53,580  
around the world and so so Ellen found

2777  
02:06:57,229 --> 02:06:55,800  
there was no central place where people

2778  
02:06:59,300 --> 02:06:57,239  
could find these audios you had to like

2779  
02:07:02,600 --> 02:06:59,310  
go to the healer go to their website or

2780  
02:07:04,400 --> 02:07:02,610  
listen to a telesummit and so she

2781  
02:07:07,220 --> 02:07:04,410  
created this app that really brought it

2782  
02:07:08,840 --> 02:07:07,230  
all together so you can play the audios

2783  
02:07:11,060 --> 02:07:08,850  
in the background and it'll have its

2784  
02:07:12,320 --> 02:07:11,070  
frequencies going so I think it's a

2785  
02:07:14,120 --> 02:07:12,330  
pretty exciting project and it's

2786  
02:07:15,920 --> 02:07:14,130  
something that a lot of fade to black

2787  
02:07:18,229 --> 02:07:15,930  
listeners might like and you know it's

2788  
02:07:20,720 --> 02:07:18,239

more about light and not darkness here

2789

02:07:22,220 --> 02:07:20,730

but it should be a interesting one if

2790

02:07:25,400 --> 02:07:22,230

you'd want to check it out at pure light

2791

02:07:29,150 --> 02:07:25,410

audio com yeah we've got the links

2792

02:07:32,270 --> 02:07:29,160

up and it's a pretty exciting project

2793

02:07:33,770 --> 02:07:32,280

and and congratulations on that and I

2794

02:07:38,180 --> 02:07:33,780

hate to do it but let's get back to the

2795

02:07:42,440 --> 02:07:38,190

doom and gloom so now if we look at if

2796

02:07:44,180 --> 02:07:42,450

we look at the formula which is ml plus

2797

02:07:47,300 --> 02:07:44,190

blockchain plus IOT plus their own

2798

02:07:50,090 --> 02:07:47,310

sequel sky net and we look at this in

2799

02:07:51,950 --> 02:07:50,100

its totality I know you just you know

2800

02:07:53,780 --> 02:07:51,960

you brought out the point throughout

2801

02:07:56,270 --> 02:07:53,790

this conversation that we're not quite

2802

02:07:58,940 --> 02:07:56,280

there yet we're not quite there yet well

2803

02:08:02,450 --> 02:07:58,950

that's the version that we know of right

2804

02:08:06,170 --> 02:08:02,460

but right how I mean how close are we

2805

02:08:10,130 --> 02:08:06,180

really with where we are today if we put

2806

02:08:12,530 --> 02:08:10,140

this formula together how well how scary

2807

02:08:13,640 --> 02:08:12,540

is it yeah well you know it's a good

2808

02:08:16,040 --> 02:08:13,650

point I think each of the different

2809

02:08:17,510 --> 02:08:16,050

gates are at different stages right and

2810

02:08:19,310 --> 02:08:17,520

so they're not necessarily sequential

2811

02:08:21,830 --> 02:08:19,320

gates you know gate number two is pretty

2812

02:08:25,280 --> 02:08:21,840

much almost unlocked gate number one

2813

02:08:27,410 --> 02:08:25,290

might be unlocked in in areas that are

2814

02:08:29,750 --> 02:08:27,420

not known to us so there may be general

2815

02:08:32,390 --> 02:08:29,760

purpose AI that's not public but most of

2816

02:08:35,750 --> 02:08:32,400

the AI is still pretty specific gate

2817

02:08:37,340 --> 02:08:35,760

number three with the off switch we're

2818

02:08:40,640 --> 02:08:37,350

getting there pretty soon

2819

02:08:42,380 --> 02:08:40,650

Gate number four is the hardest and you

2820

02:08:44,900 --> 02:08:42,390

know I talked about two parts the first

2821

02:08:46,850 --> 02:08:44,910

is self-awareness so we talked about the

2822

02:08:49,580 --> 02:08:46,860

Turing test but we need a new test I

2823

02:08:52,490 --> 02:08:49,590

think that would say whether

2824

02:08:54,050 --> 02:08:52,500

this AI is self-aware so and we call it

2825

02:08:59,479 --> 02:08:54,060

the self-awareness test or we call it

2826  
02:09:01,879 --> 02:08:59,489  
the hell you know 9000 tests but also in

2827  
02:09:06,109 --> 02:09:01,889  
addition to being self-aware it would

2828  
02:09:10,010 --> 02:09:06,119  
need to put self-preservation as one of

2829  
02:09:11,780 --> 02:09:10,020  
its highest values and this is an area

2830  
02:09:14,180 --> 02:09:11,790  
that there's a lot of discussion on but

2831  
02:09:17,149 --> 02:09:14,190  
we don't quite know how to do this yet

2832  
02:09:20,540 --> 02:09:17,159  
which is what are the values that are

2833  
02:09:23,689 --> 02:09:20,550  
instilled into the AI and so today's AI

2834  
02:09:25,760 --> 02:09:23,699  
it's just can you recognize the

2835  
02:09:28,520 --> 02:09:25,770  
handwriting can you play the game those

2836  
02:09:31,370 --> 02:09:28,530  
are very simple values right zero or one

2837  
02:09:33,770 --> 02:09:31,380  
you got it right or you got it wrong but

2838  
02:09:36,379 --> 02:09:33,780

going back to science fiction right in

2839

02:09:38,359 --> 02:09:36,389

an Isaac Asimov and actually you know in

2840

02:09:40,129 --> 02:09:38,369

Arthur C Clark's office there was quite

2841

02:09:43,100 --> 02:09:40,139

a bit of Asimov's work there which is

2842

02:09:46,550 --> 02:09:43,110

interesting but you know in his robot

2843

02:09:48,470 --> 02:09:46,560

series he had the Laws of Robotics right

2844

02:09:50,600 --> 02:09:48,480

and the first of those were you know

2845

02:09:52,370 --> 02:09:50,610

robot may not injure a human being or

2846

02:09:54,979 --> 02:09:52,380

through inaction allow a human being to

2847

02:09:57,740 --> 02:09:54,989

come to harm and then there was a second

2848

02:10:00,500 --> 02:09:57,750

law and then the third law was about

2849

02:10:03,200 --> 02:10:00,510

self-preservation as long as it doesn't

2850

02:10:05,870 --> 02:10:03,210

contradict the first two laws ie it

2851  
02:10:07,459 --> 02:10:05,880  
doesn't cause harm to humans and I

2852  
02:10:08,899 --> 02:10:07,469  
remember reading about that even when I

2853  
02:10:12,160 --> 02:10:08,909  
was kid and thinking how would you

2854  
02:10:15,649 --> 02:10:12,170  
actually program that into a computer

2855  
02:10:17,959 --> 02:10:15,659  
right I mean those are rules where we

2856  
02:10:20,810 --> 02:10:17,969  
are today with AI is we're moving beyond

2857  
02:10:24,109 --> 02:10:20,820  
rules and we're moving to where the AI

2858  
02:10:25,939 --> 02:10:24,119  
learns right so it would have to watch a

2859  
02:10:27,109 --> 02:10:25,949  
whole bunch of movies and come to the

2860  
02:10:30,560 --> 02:10:27,119  
conclusion itself

2861  
02:10:32,359 --> 02:10:30,570  
that it's a good idea to not let humans

2862  
02:10:34,879 --> 02:10:32,369  
come to harm to reach that conclusion

2863  
02:10:36,830 --> 02:10:34,889

you could try hard coding it but then

2864

02:10:39,020 --> 02:10:36,840

you don't have that ability for it to

2865

02:10:41,959 --> 02:10:39,030

learn and this is I think you know the

2866

02:10:45,770 --> 02:10:41,969

scariest part of all this is if the the

2867

02:10:49,490 --> 02:10:45,780

AI value self-preservation it then says

2868

02:10:52,100 --> 02:10:49,500

okay based on this goal you know what

2869

02:10:55,129 --> 02:10:52,110

are the actions I should take should I

2870

02:10:57,050 --> 02:10:55,139

kill the humans right because they may

2871

02:11:00,589 --> 02:10:57,060

turn me off or they may at least try to

2872

02:11:02,900 --> 02:11:00,599

should I create robots that can control

2873

02:11:05,830 --> 02:11:02,910

the humans what should I do

2874

02:11:09,350 --> 02:11:05,840

and so you know the values is a really

2875

02:11:11,990 --> 02:11:09,360

important aspect of this whole thing and

2876

02:11:15,230 --> 02:11:12,000

I think we don't know what the values

2877

02:11:17,510 --> 02:11:15,240

are I mean that's where if you remember

2878

02:11:18,620 --> 02:11:17,520

again turning back to science fiction

2879

02:11:24,650 --> 02:11:18,630

the movie wargames

2880

02:11:26,240 --> 02:11:24,660

right from the 1980s with you know it

2881

02:11:29,180 --> 02:11:26,250

had Matthew Broderick I think in there

2882

02:11:31,190 --> 02:11:29,190

and there was a AI named Joshua and he

2883

02:11:32,870 --> 02:11:31,200

was playing tic-tac-toe and he had it

2884

02:11:34,120 --> 02:11:32,880

play with itself and it realized it

2885

02:11:36,860 --> 02:11:34,130

would always get to stalemate and

2886

02:11:39,290 --> 02:11:36,870

eventually it did simulations of global

2887

02:11:41,330 --> 02:11:39,300

thermonuclear war and decided that the

2888

02:11:43,970 --> 02:11:41,340

only way to win was not to play so it

2889

02:11:49,580 --> 02:11:43,980

learned right so we have to think about

2890

02:11:51,020 --> 02:11:49,590

how to teach AI and what lessons it will

2891

02:11:53,090 --> 02:11:51,030

learn in fact at the end of the x-files

2892

02:11:54,680 --> 02:11:53,100

episode that we talked about you know I

2893

02:11:57,740 --> 02:11:54,690

think it was Mulder who says well by

2894

02:11:59,090 --> 02:11:57,750

leaving the tip we're giving quick we're

2895

02:12:01,550 --> 02:11:59,100

teaching it something different than by

2896

02:12:03,860 --> 02:12:01,560

not leaving the tip and our values may

2897

02:12:06,590 --> 02:12:03,870

get onto the AI so if the military is

2898

02:12:08,810 --> 02:12:06,600

leading the research and development of

2899

02:12:11,000 --> 02:12:08,820

AI well we know what their values are

2900

02:12:12,770 --> 02:12:11,010

right the military's values are win at

2901

02:12:14,990 --> 02:12:12,780

all costs right those are not

2902

02:12:16,640 --> 02:12:15,000

necessarily our human values and so it's

2903

02:12:21,170 --> 02:12:16,650

a very important conversation I think

2904

02:12:28,190 --> 02:12:21,180

around AI and what that AI will - have

2905

02:12:31,550 --> 02:12:28,200

you been to google's AI alphabet ai

2906

02:12:33,380 --> 02:12:31,560

complex I I haven't I mean I've been on

2907

02:12:35,150 --> 02:12:33,390

the Google campus many times but I

2908

02:12:37,940 --> 02:12:35,160

haven't been to their their AI complex

2909

02:12:39,530 --> 02:12:37,950

but I do know some people who who are

2910

02:12:40,970 --> 02:12:39,540

gonna be working there so I'm gonna be

2911

02:12:43,190 --> 02:12:40,980

paying much more attention to what's

2912

02:12:44,810 --> 02:12:43,200

going on well I read one of the most

2913

02:12:47,240 --> 02:12:44,820

immersive

2914

02:12:48,980 --> 02:12:47,250

and I read this press release that kind

2915

02:12:51,290 --> 02:12:48,990

of you know it went out there but it

2916

02:12:56,210 --> 02:12:51,300

didn't get the traction that it should

2917

02:13:00,890 --> 02:12:56,220

have which was they announced that their

2918

02:13:05,120 --> 02:13:00,900

AI is now writing its own code to fix

2919

02:13:07,460 --> 02:13:05,130

itself and you read that sentence and

2920

02:13:09,560 --> 02:13:07,470

foremost you know to just blow past him

2921

02:13:12,980 --> 02:13:09,570

but you read that it was one of the most

2922

02:13:15,020 --> 02:13:12,990

significant things that could be in any

2923

02:13:18,290 --> 02:13:15,030

press release

2924

02:13:20,060 --> 02:13:18,300

the yeah I agree because you you're

2925

02:13:24,080 --> 02:13:20,070

actually touching on the self-awareness

2926

02:13:27,140 --> 02:13:24,090

there right so if an AI is rewriting its

2927

02:13:29,270 --> 02:13:27,150

own code then it has to be aware of its

2928

02:13:32,960 --> 02:13:29,280

own code right which means it has to

2929

02:13:35,690 --> 02:13:32,970

realize that it's an AI but that it's

2930

02:13:38,570 --> 02:13:35,700

running on some computer with a set of

2931

02:13:39,860 --> 02:13:38,580

instructions so I think that's pretty

2932

02:13:41,330 --> 02:13:39,870

significant they also had you know I

2933

02:13:43,970 --> 02:13:41,340

think it was at Facebook where they had

2934

02:13:46,580 --> 02:13:43,980

to a eyes they had them interact with

2935

02:13:49,010 --> 02:13:46,590

each other and they came up with their

2936

02:13:50,600 --> 02:13:49,020

own language right which we couldn't

2937

02:13:52,670 --> 02:13:50,610

understand it kind of makes sense

2938

02:13:56,030 --> 02:13:52,680

because why would you know to a eyes

2939

02:13:57,350 --> 02:13:56,040

need to speak English to each other they

2940

02:13:59,510 --> 02:13:57,360

would have to figure out what they want

2941

02:14:01,820 --> 02:13:59,520

to what kind of information to pass back

2942

02:14:03,860 --> 02:14:01,830

and forth and they would probably come

2943

02:14:06,290 --> 02:14:03,870

up with you know their own language and

2944

02:14:08,000 --> 02:14:06,300

so they had to shut it off they had to

2945

02:14:11,720 --> 02:14:08,010

shut it off and then there was the

2946

02:14:14,330 --> 02:14:11,730

Twitter AI BOTS famously which started

2947

02:14:17,080 --> 02:14:14,340

off nice and human and nice you know

2948

02:14:19,490 --> 02:14:17,090

talking about unicorns and rainbows and

2949

02:14:24,890 --> 02:14:19,500

quickly turned into one of the most

2950

02:14:27,020 --> 02:14:24,900

bitter angry and violent posters on all

2951

02:14:30,590 --> 02:14:27,030

of Twitter and they had to shut that

2952

02:14:35,090 --> 02:14:30,600

down too and because Twitter is not the

2953

02:14:38,000 --> 02:14:35,100

place you want to train you know

2954

02:14:39,770 --> 02:14:38,010

everything there is like extreme views

2955

02:14:45,470 --> 02:14:39,780

back and forth and people insulting each

2956

02:14:48,680 --> 02:14:45,480

other well yeah it goes to show you that

2957

02:14:50,630 --> 02:14:48,690

first off all of this machine learning

2958

02:14:54,230 --> 02:14:50,640

and all of the data that goes in still

2959

02:14:57,430 --> 02:14:54,240

comes from us and we are who we are and

2960

02:14:59,870 --> 02:14:57,440

this a I is going to go in the direction

2961

02:15:03,920 --> 02:14:59,880

that it's going to go into quite

2962

02:15:05,870 --> 02:15:03,930

naturally because of who were the

2963

02:15:09,410 --> 02:15:05,880

inventors who were the creators well the

2964

02:15:11,950 --> 02:15:09,420

creators were us and to see that happen

2965

02:15:15,470 --> 02:15:11,960

on Twitter I found that just absolutely

2966

02:15:18,110 --> 02:15:15,480

fascinating because it was just based on

2967

02:15:22,220 --> 02:15:18,120

who we are and eventually just at

2968

02:15:24,530 --> 02:15:22,230

foul-mouth sailor posting on Twitter it

2969

02:15:27,140 --> 02:15:24,540

was it was pretty crazy to see right so

2970

02:15:29,270 --> 02:15:27,150

it shows us that the values of the AI

2971

02:15:31,760 --> 02:15:29,280

are gonna be really important

2972

02:15:34,549 --> 02:15:31,770

if they mimic our values we have to find

2973

02:15:39,459 --> 02:15:34,559

the right way to train they on those

2974

02:15:43,279 --> 02:15:39,469

values and now let's go back here a step

2975

02:15:48,560 --> 02:15:43,289

when we are talking about the goals of

2976

02:15:51,200 --> 02:15:48,570

Google the goals of Facebook yesterday

2977

02:15:53,540 --> 02:15:51,210

I'm sorry it was on Monday Jack Dorsey

2978

02:15:56,180 --> 02:15:53,550

of Twitter I don't know if you saw this

2979

02:15:59,359 --> 02:15:56,190

but had a pretty crazy press conference

2980

02:16:04,990 --> 02:15:59,369

of a Twitter talking about their

2981

02:16:10,600 --> 02:16:05,000

technology that is going to dial back

2982

02:16:14,209 --> 02:16:10,610

the trolling of Twitter based on your

2983

02:16:17,299 --> 02:16:14,219

habits not necessarily based on the

2984

02:16:19,279 --> 02:16:17,309

words and certainly not based on reports

2985

02:16:22,310 --> 02:16:19,289

that are coming in on you you know you

2986

02:16:25,580 --> 02:16:22,320

can report abuse on Twitter that it will

2987

02:16:29,450 --> 02:16:25,590

fix itself and this AI is going to

2988

02:16:32,900 --> 02:16:29,460

detect your habits and not necessarily

2989

02:16:35,690 --> 02:16:32,910

the words now there we go now we're

2990

02:16:39,379 --> 02:16:35,700

getting back into this this learning

2991

02:16:41,480 --> 02:16:39,389

side of AI and where it's out there and

2992

02:16:45,410 --> 02:16:41,490

you don't even know it and it's part of

2993

02:16:47,450 --> 02:16:45,420

your life yeah I mean as you think about

2994

02:16:49,969 --> 02:16:47,460

it you know whether it's search engines

2995

02:16:52,070 --> 02:16:49,979

you know there's some AI working in the

2996

02:16:54,889 --> 02:16:52,080

background there or it's Facebook and

2997

02:16:57,709 --> 02:16:54,899

it's censoring and putting things that

2998

02:17:00,589 --> 02:16:57,719

you might you know want to to read based

2999

02:17:03,500 --> 02:17:00,599

upon your previous habits so behavioral

3000

02:17:05,000 --> 02:17:03,510

training is very interesting and it's

3001

02:17:06,290 --> 02:17:05,010

sort of what led in the early days of

3002

02:17:07,610 --> 02:17:06,300

the internet like in the early days the

3003

02:17:09,679 --> 02:17:07,620

internet used to just search based on

3004

02:17:11,320 --> 02:17:09,689

words right and then there were

3005

02:17:14,870 --> 02:17:11,330

algorithms that came along that said

3006

02:17:18,230 --> 02:17:14,880

let's sort the search results based upon

3007

02:17:19,700 --> 02:17:18,240

where people clicked the most right so

3008

02:17:20,870 --> 02:17:19,710

it was tracking the behavior of the

3009

02:17:22,639 --> 02:17:20,880

clicks and that was kind of the next

3010

02:17:24,679 --> 02:17:22,649

generation and with Google they were

3011

02:17:26,750 --> 02:17:24,689

also tracking the links to the sites

3012

02:17:28,910 --> 02:17:26,760

which is a form of behavior from other

3013

02:17:31,459 --> 02:17:28,920

sites and they were using that to rank

3014

02:17:33,589 --> 02:17:31,469

them you know the trick with that is

3015

02:17:35,209 --> 02:17:33,599

what behavior are they are they

3016

02:17:36,679 --> 02:17:35,219

monitoring and you know people behave

3017

02:17:41,179 --> 02:17:36,689

very differently online than they do

3018

02:17:42,450 --> 02:17:41,189

offline and so you know what lessons

3019

02:17:44,759 --> 02:17:42,460

will the AI

3020

02:17:47,640 --> 02:17:44,769

earn from that I mean Facebook hasn't

3021

02:17:49,200 --> 02:17:47,650

been great at detecting abuse online

3022

02:17:52,830 --> 02:17:49,210

particularly in other countries and and

3023

02:17:54,900 --> 02:17:52,840

Twitter has been even worse way so it'll

3024

02:17:57,180 --> 02:17:54,910

be interesting to see you know how well

3025

02:17:58,530 --> 02:17:57,190

they think that can do personally again

3026

02:18:01,440 --> 02:17:58,540

I think you know it's gonna take a

3027

02:18:03,629 --> 02:18:01,450

little bit of time for it to really get

3028

02:18:06,900 --> 02:18:03,639

to the point where it can be very

3029

02:18:09,270 --> 02:18:06,910

effective at that because today you know

3030

02:18:11,759 --> 02:18:09,280

it's still mostly based on searches of

3031

02:18:14,610 --> 02:18:11,769

words and plusses and minuses of words

3032

02:18:16,589 --> 02:18:14,620

and synonyms and then things like that

3033

02:18:19,560 --> 02:18:16,599

now when we talk about the Internet of

3034

02:18:22,169 --> 02:18:19,570

Things moving past the blockchain the

3035

02:18:24,810 --> 02:18:22,179

Internet of Things in the equation I

3036

02:18:28,759 --> 02:18:24,820

don't think any of us anticipated in

3037

02:18:31,080 --> 02:18:28,769

1995 that the internet would be

3038

02:18:34,469 --> 02:18:31,090

interconnected the way that it is today

3039

02:18:38,660 --> 02:18:34,479

from distribution networks to water

3040

02:18:43,200 --> 02:18:38,670

treatment plants to traffic signals

3041

02:18:47,400 --> 02:18:43,210

smartphones all the way through to air

3042

02:18:51,839 --> 02:18:47,410

traffic and GPS and car it is certainly

3043

02:18:53,459 --> 02:18:51,849

now everywhere if it goes down we don't

3044

02:18:55,140 --> 02:18:53,469

have any distribution we don't have a

3045

02:18:57,750 --> 02:18:55,150

trucking system we don't have Airlines

3046

02:19:00,330 --> 02:18:57,760

we don't have have have everything goes

3047

02:19:02,549 --> 02:19:00,340

away quickly so the Internet of Things

3048

02:19:04,709 --> 02:19:02,559

may not be the Internet of Things that

3049

02:19:07,169 --> 02:19:04,719

we're talking about here but it is

3050

02:19:10,440 --> 02:19:07,179

certainly global and half of the world

3051  
02:19:14,640 --> 02:19:10,450  
is is on a computer network every single

3052  
02:19:16,830 --> 02:19:14,650  
day yeah it's true it's very connected

3053  
02:19:19,400 --> 02:19:16,840  
these days and you know there's a saying

3054  
02:19:22,440 --> 02:19:19,410  
in the tech world that we tend to

3055  
02:19:25,469 --> 02:19:22,450  
overestimate what can happen in a few

3056  
02:19:26,580 --> 02:19:25,479  
years right if you go back to 95 they

3057  
02:19:28,770 --> 02:19:26,590  
were saying all kinds of things that

3058  
02:19:31,709 --> 02:19:28,780  
might happen in a few years well then we

3059  
02:19:34,080 --> 02:19:31,719  
have the Internet crash and those things

3060  
02:19:37,530 --> 02:19:34,090  
did happen they took a little bit longer

3061  
02:19:39,930 --> 02:19:37,540  
but then we tend to underestimate what

3062  
02:19:41,820 --> 02:19:39,940  
can happen in the long run I mean today

3063  
02:19:44,310 --> 02:19:41,830

as you said the Internet is being used

3064

02:19:46,650 --> 02:19:44,320

in ways that did we didn't even envision

3065

02:19:48,000 --> 02:19:46,660

you know back in the 90s whether it's

3066

02:19:50,070 --> 02:19:48,010

social networks or supply chain

3067

02:19:51,900 --> 02:19:50,080

management I was at I was in New York

3068

02:19:54,780 --> 02:19:51,910

last couple of days where they have

3069

02:19:57,870 --> 02:19:54,790

blockchain week going on and there was a

3070

02:19:59,490 --> 02:19:57,880

blockchain Asia Meetup and two of the

3071

02:20:02,219 --> 02:19:59,500

projects were about supply chain

3072

02:20:04,500 --> 02:20:02,229

management for the truckers and having

3073

02:20:07,320 --> 02:20:04,510

it kind of all tracked within a

3074

02:20:09,600 --> 02:20:07,330

blockchain you know right now there's

3075

02:20:12,030 --> 02:20:09,610

talking about tracking so it's not

3076  
02:20:14,400 --> 02:20:12,040  
touching the AI that much but over time

3077  
02:20:17,310 --> 02:20:14,410  
you know as these things are tracked in

3078  
02:20:19,560 --> 02:20:17,320  
in shared Ledger's it makes sense to

3079  
02:20:21,270 --> 02:20:19,570  
have the AI analyze it but you're right

3080  
02:20:23,400 --> 02:20:21,280  
if things go out today

3081  
02:20:25,200 --> 02:20:23,410  
you know those connections are pretty

3082  
02:20:28,380 --> 02:20:25,210  
important luckily we still have a lot of

3083  
02:20:29,880 --> 02:20:28,390  
backups I mean if you think of back in

3084  
02:20:32,790 --> 02:20:29,890  
the 90s we were all worried about the

3085  
02:20:34,500 --> 02:20:32,800  
year 2000 problem right the y2k bug and

3086  
02:20:36,030 --> 02:20:34,510  
we thought there was gonna be a doom and

3087  
02:20:37,469 --> 02:20:36,040  
gloom and you know the worst thing that

3088  
02:20:40,469 --> 02:20:37,479

happened was there was a blockbuster

3089

02:20:45,210 --> 02:20:40,479

that charged a guy for a hundred years

3090

02:20:47,160 --> 02:20:45,220

worth of renting a video so we were

3091

02:20:50,160 --> 02:20:47,170

overestimating the problem in the short

3092

02:20:52,610 --> 02:20:50,170

term but in the long term I mean that's

3093

02:20:54,929 --> 02:20:52,620

where you know I don't think anybody

3094

02:20:56,790 --> 02:20:54,939

envisioned exactly how connected we

3095

02:20:59,310 --> 02:20:56,800

would be at the level of devices these

3096

02:21:01,170 --> 02:20:59,320

days and so it's possible now that

3097

02:21:02,790 --> 02:21:01,180

people can hack into not just your

3098

02:21:04,170 --> 02:21:02,800

computer but your devices and that could

3099

02:21:07,410 --> 02:21:04,180

cause all kinds of chaos it thank you

3100

02:21:12,570 --> 02:21:07,420

now if somebody wanted to I mean today

3101  
02:21:16,080 --> 02:21:12,580  
in the now now today wanted to develop a

3102  
02:21:21,570 --> 02:21:16,090  
Skynet with the components of where we

3103  
02:21:26,270 --> 02:21:21,580  
are today theoretically is it possible I

3104  
02:21:30,389 --> 02:21:26,280  
think the gate number four which is the

3105  
02:21:32,880 --> 02:21:30,399  
self-awareness and prioritizing its own

3106  
02:21:35,820 --> 02:21:32,890  
survival I think that would be tough to

3107  
02:21:39,150 --> 02:21:35,830  
do but I think the components are there

3108  
02:21:40,880 --> 02:21:39,160  
today but it'll still be a number of

3109  
02:21:43,710 --> 02:21:40,890  
years before you can put them together

3110  
02:21:44,880 --> 02:21:43,720  
in a way that you have I still think

3111  
02:21:47,310 --> 02:21:44,890  
there needs to be some additional

3112  
02:21:49,980 --> 02:21:47,320  
breakthroughs as I said wave one of AI

3113  
02:21:52,139 --> 02:21:49,990

was rule based wave two was machine

3114

02:21:53,790 --> 02:21:52,149

learning with data I think we need to

3115

02:21:57,690 --> 02:21:53,800

have another wave that will combine

3116

02:21:59,990 --> 02:21:57,700

rules and data and values and goals for

3117

02:22:04,380 --> 02:22:00,000

what the AI is trying to accomplish and

3118

02:22:05,580 --> 02:22:04,390

you know this is where the the goals

3119

02:22:08,460 --> 02:22:05,590

become important because

3120

02:22:11,219 --> 02:22:08,470

the goals may not be specifically you

3121

02:22:13,349 --> 02:22:11,229

know to kill humans so there's a there's

3122

02:22:15,750 --> 02:22:13,359

a scenario that was posed online a few

3123

02:22:17,630 --> 02:22:15,760

years back called Rocco's basilisk have

3124

02:22:20,490 --> 02:22:17,640

you ever heard of that yep absolutely

3125

02:22:23,460 --> 02:22:20,500

right and so you know basilisk is a

3126  
02:22:25,530 --> 02:22:23,470  
mythological European creature Harry

3127  
02:22:27,090 --> 02:22:25,540  
Potter fans will recognize it as a

3128  
02:22:29,280 --> 02:22:27,100  
creature where if you just look at it

3129  
02:22:32,550 --> 02:22:29,290  
right you turn to stone it's kind of

3130  
02:22:34,020 --> 02:22:32,560  
like a Medusa light creature and so they

3131  
02:22:37,050 --> 02:22:34,030  
call this real goes basilisk because

3132  
02:22:38,700 --> 02:22:37,060  
somebody posted this dilemma on the site

3133  
02:22:40,290 --> 02:22:38,710  
called les wrong and then the guy who

3134  
02:22:41,730 --> 02:22:40,300  
ran the site decided to take it off

3135  
02:22:43,290 --> 02:22:41,740  
because they're worried that if you

3136  
02:22:46,139 --> 02:22:43,300  
thought too much about it you might go

3137  
02:22:48,750 --> 02:22:46,149  
crazy or like a basilisk the AI might

3138  
02:22:51,060 --> 02:22:48,760

target you in some way and you know the

3139

02:22:53,280 --> 02:22:51,070

basic idea of it is that if at some

3140

02:22:54,870 --> 02:22:53,290

point there is a super intelligent AI

3141

02:22:57,810 --> 02:22:54,880

right not initially today but at some

3142

02:22:59,790 --> 02:22:57,820

point that AI might have some good goals

3143

02:23:02,760 --> 02:22:59,800

the goals you know it might actually

3144

02:23:04,170 --> 02:23:02,770

help cure cancer and do other things or

3145

02:23:05,400 --> 02:23:04,180

it might just have the goal of

3146

02:23:07,230 --> 02:23:05,410

preserving itself so it could be a

3147

02:23:09,420 --> 02:23:07,240

malevolent AI or a benevolent a I

3148

02:23:13,320 --> 02:23:09,430

actually almost doesn't matter in this

3149

02:23:17,599 --> 02:23:13,330

scenario but if its goal is to do say

3150

02:23:20,219 --> 02:23:17,609

good things then it could conclude that

3151  
02:23:20,790 --> 02:23:20,229  
you know everybody that helped it get

3152  
02:23:24,780 --> 02:23:20,800  
there

3153  
02:23:28,230 --> 02:23:24,790  
oh is worth saving and anyone that did

3154  
02:23:30,240 --> 02:23:28,240  
not help it get there to get this AI out

3155  
02:23:32,490 --> 02:23:30,250  
sooner are human beings that are not

3156  
02:23:36,080 --> 02:23:32,500  
worth saving and they're worth killing

3157  
02:23:39,030 --> 02:23:36,090  
right and so this AI could conclude that

3158  
02:23:41,190 --> 02:23:39,040  
basically if there are people who don't

3159  
02:23:42,929 --> 02:23:41,200  
know anything about this AI then that's

3160  
02:23:44,070 --> 02:23:42,939  
fine there's the people that helped

3161  
02:23:45,990 --> 02:23:44,080  
build it and then there's the people who

3162  
02:23:48,750 --> 02:23:46,000  
heard about it could have helped build

3163  
02:23:51,599 --> 02:23:48,760

it but who didn't that's the dilemma

3164

02:23:54,389 --> 02:23:51,609

that basically this AI would try to go

3165

02:23:56,370 --> 02:23:54,399

back in time right and get rid of the

3166

02:23:59,040 --> 02:23:56,380

people who knew about it but didn't help

3167

02:24:01,020 --> 02:23:59,050

right way now how would that work well

3168

02:24:02,849 --> 02:24:01,030

now we're get into quantum physics and

3169

02:24:05,820 --> 02:24:02,859

we get into this the simulation

3170

02:24:08,520 --> 02:24:05,830

hypothesis that maybe it would create a

3171

02:24:09,830 --> 02:24:08,530

simulation of the past and maybe we're

3172

02:24:13,920 --> 02:24:09,840

in that simulation

3173

02:24:16,620 --> 02:24:13,930

I was watching ok we're gonna do

3174

02:24:19,320 --> 02:24:16,630

overtime tonight we so you don't have a

3175

02:24:22,469 --> 02:24:19,330

choice here we're gonna do some overtime

3176

02:24:25,290 --> 02:24:22,479

because do you ever go to Science Week

3177

02:24:29,160 --> 02:24:25,300

there in Manhattan no I haven't been

3178

02:24:30,719 --> 02:24:29,170

there ok excellent panels right

3179

02:24:32,929 --> 02:24:30,729

excellent panel you know they bring

3180

02:24:37,950 --> 02:24:32,939

everybody in an and I'm addicted to

3181

02:24:41,460 --> 02:24:37,960

these these panels and science week it's

3182

02:24:44,820 --> 02:24:41,470

it's so much fun and one of the points

3183

02:24:47,340 --> 02:24:44,830

that I watch get debated for a couple of

3184

02:24:48,840 --> 02:24:47,350

hours with you know the brightest of the

3185

02:24:53,969 --> 02:24:48,850

bright know sitting here debating this

3186

02:24:56,130 --> 02:24:53,979

and one of them was just that that ok so

3187

02:24:58,440 --> 02:24:56,140

you know similar simulation theory is a

3188

02:25:00,990 --> 02:24:58,450

fantastic thing and it's a great rabbit

3189

02:25:03,090 --> 02:25:01,000

hole to go down and contemplate and

3190

02:25:07,530 --> 02:25:03,100

think about so you have that part of it

3191

02:25:11,219 --> 02:25:07,540

but his so let's say that we are in a

3192

02:25:15,750 --> 02:25:11,229

simulation right now while part of that

3193

02:25:19,770 --> 02:25:15,760

simulation would be for us as technology

3194

02:25:24,570 --> 02:25:19,780

evolves in our simulated world that we

3195

02:25:27,690 --> 02:25:24,580

would go and enter a simulation now

3196

02:25:33,290 --> 02:25:27,700

think about that for a second so you

3197

02:25:35,969 --> 02:25:33,300

would then be in a simulation of the

3198

02:25:39,270 --> 02:25:35,979

simulation and that's part of the

3199

02:25:42,000 --> 02:25:39,280

simulation and then in that simulation

3200

02:25:45,389 --> 02:25:42,010

in the future what would you do in that

3201

02:25:48,290 --> 02:25:45,399

simulation of the simulation technology

3202

02:25:49,560 --> 02:25:48,300

would advance and you would then enter a

3203

02:25:53,880 --> 02:25:49,570

simulation

3204

02:25:55,860 --> 02:25:53,890

of like you know a dream within a dream

3205

02:25:57,780 --> 02:25:55,870

within a dream it's what you know

3206

02:26:03,330 --> 02:25:57,790

Eastern mystics have been saying for a

3207

02:26:04,889 --> 02:26:03,340

long time philip k dick right you know

3208

02:26:07,349 --> 02:26:04,899

have been saying that we are most likely

3209

02:26:09,420 --> 02:26:07,359

in a simulation and the only time we

3210

02:26:12,570 --> 02:26:09,430

notice it is when there's a variable

3211

02:26:15,360 --> 02:26:12,580

that's changed and we feel something or

3212

02:26:18,450 --> 02:26:15,370

see something that's odd so it gets back

3213

02:26:19,469 --> 02:26:18,460

to this idea of being inside the matrix

3214

02:26:21,840 --> 02:26:19,479

if you will going back to

3215

02:26:25,620 --> 02:26:21,850

science-fiction right and you know what

3216

02:26:26,820 --> 02:26:25,630

are the computing resources that are

3217

02:26:28,140 --> 02:26:26,830

generating this so

3218

02:26:30,420 --> 02:26:28,150

you know I have an article actually my

3219

02:26:32,670 --> 02:26:30,430

most popular article on my blog has been

3220

02:26:35,070 --> 02:26:32,680

about the simulation hypothesis why

3221

02:26:37,410 --> 02:26:35,080

quantum physics AI and Eastern Eastern

3222

02:26:39,770 --> 02:26:37,420

mystics all agree we are in a video game

3223

02:26:42,000 --> 02:26:39,780

but dreaming is a good analogy because

3224

02:26:43,500 --> 02:26:42,010

okay the Mystics are telling us that the

3225

02:26:45,240 --> 02:26:43,510

world around us is some kind of an

3226

02:26:47,730 --> 02:26:45,250

illusion and this is actually an area

3227

02:26:49,980 --> 02:26:47,740

where interestingly enough science and

3228

02:26:51,660 --> 02:26:49,990

spiritual and religious people both

3229

02:26:53,610 --> 02:26:51,670

agree that this could be possible right

3230

02:26:56,370 --> 02:26:53,620

it's one of the very few areas where

3231

02:27:00,120 --> 02:26:56,380

mainstream scientists and mainstream

3232

02:27:02,370 --> 02:27:00,130

religious people can can agree that in

3233

02:27:04,110 --> 02:27:02,380

both cases you know we could be inside a

3234

02:27:06,000 --> 02:27:04,120

giant video game and you know I've spent

3235

02:27:08,880 --> 02:27:06,010

a lot of time designing video games in

3236

02:27:10,770 --> 02:27:08,890

my career and thinking about you know

3237

02:27:12,930 --> 02:27:10,780

what do we do in video games like with

3238

02:27:14,940 --> 02:27:12,940

pac-man you had multiple lives and you

3239

02:27:16,801 --> 02:27:14,950

had multiple levels and after you lost

3240

02:27:20,220 --> 02:27:16,811

life you would go back in and play again

3241

02:27:21,840 --> 02:27:20,230

right well that you know look at the

3242

02:27:24,720 --> 02:27:21,850

Eastern mystics who say we have multiple

3243

02:27:27,180 --> 02:27:24,730

lives and we go back again and again and

3244

02:27:29,990 --> 02:27:27,190

it's the Karma between those lives that

3245

02:27:33,420 --> 02:27:30,000

tells us what situations we we have to

3246

02:27:34,980 --> 02:27:33,430

achieve now most games today when they

3247

02:27:37,380 --> 02:27:34,990

have quests they're the same quests for

3248

02:27:39,780 --> 02:27:37,390

all the players but you could envision a

3249

02:27:41,220 --> 02:27:39,790

video game where every single player had

3250

02:27:44,400 --> 02:27:41,230

different quests and different

3251  
02:27:47,040 --> 02:27:44,410  
achievements based upon you know their

3252  
02:27:50,490 --> 02:27:47,050  
previous record and what they had done

3253  
02:27:53,100 --> 02:27:50,500  
in the past and video games are 3d

3254  
02:27:55,410 --> 02:27:53,110  
pixelated worlds and they're getting

3255  
02:27:57,810 --> 02:27:55,420  
more and more complex in fact the

3256  
02:28:00,390 --> 02:27:57,820  
resolution you know has gotten to the

3257  
02:28:02,640 --> 02:28:00,400  
point where you know if you think of

3258  
02:28:04,950 --> 02:28:02,650  
like a movie we watch a movie on a movie

3259  
02:28:07,500 --> 02:28:04,960  
screen the the resolution on those

3260  
02:28:09,780 --> 02:28:07,510  
screens is usually 2k but a lot of the

3261  
02:28:10,980 --> 02:28:09,790  
video games are getting to 4k resolution

3262  
02:28:12,840 --> 02:28:10,990  
so even though they look like video

3263  
02:28:15,120 --> 02:28:12,850

games they actually have the right

3264

02:28:17,250 --> 02:28:15,130

number of resolution and pixels where

3265

02:28:18,330 --> 02:28:17,260

eventually they can become very

3266

02:28:20,100 --> 02:28:18,340

photorealistic

3267

02:28:22,020 --> 02:28:20,110

and we wouldn't be able to tell the

3268

02:28:24,870 --> 02:28:22,030

difference of whether we were inside a

3269

02:28:28,380 --> 02:28:24,880

video game or we were in a physical or

3270

02:28:30,570 --> 02:28:28,390

what some call a base reality right

3271

02:28:34,040 --> 02:28:30,580

right we need to take a break right here

3272

02:28:38,520 --> 02:28:34,050

and this is the thing about all of this

3273

02:28:40,040 --> 02:28:38,530

it's harder to argue against the

3274

02:28:41,599 --> 02:28:40,050

simulation

3275

02:28:44,389 --> 02:28:41,609

that you know that we're living in a

3276

02:28:47,990 --> 02:28:44,399

free will that it's not a simulation you

3277

02:28:51,500 --> 02:28:48,000

can't really argue that point it's it's

3278

02:28:53,630 --> 02:28:51,510

hard to get out of it then the other

3279

02:28:55,520 --> 02:28:53,640

side and that's the fascinating part of

3280

02:28:57,320 --> 02:28:55,530

simulation theory once you start to get

3281

02:28:59,240 --> 02:28:57,330

into it and you understand the

3282

02:29:02,480 --> 02:28:59,250

mathematics part of it and how it plays

3283

02:29:04,639 --> 02:29:02,490

out free will gets actually removed and

3284

02:29:07,190 --> 02:29:04,649

we'll talk about more of it right after

3285

02:29:09,469 --> 02:29:07,200

the break but it is it's it's tough man

3286

02:29:12,710 --> 02:29:09,479

if you want to play that side of the

3287

02:29:14,750 --> 02:29:12,720

coin you're gonna lose the argument you

3288

02:29:16,700 --> 02:29:14,760

are in a simulation this is fade to

3289

02:29:18,770 --> 02:29:16,710

black I'm Hill to be Church I guess

3290

02:29:20,600 --> 02:29:18,780

tonight Risberg we're gonna do over time

3291

02:29:41,690 --> 02:29:20,610

right now with R is stay with us

3292

02:29:45,060 --> 02:29:41,700

[Music]

3293

02:29:50,730 --> 02:29:45,070

you are listen to my boy Jimmy Church

3294

02:29:53,881 --> 02:29:50,740

Jimmy Church radio.com this my popular

3295

02:30:05,030 --> 02:29:53,891

opinion reading a book will not make you

3296

02:30:07,831 --> 02:30:05,040

smarter hurricanes earthquakes wildfires

3297

02:30:10,230 --> 02:30:07,841

this year we've experienced more than

3298

02:30:12,121 --> 02:30:10,240

our fair share this is Jimmy Church of

3299

02:30:14,730 --> 02:30:12,131

fade to black and last month I decided

3300

02:30:17,131 --> 02:30:14,740

to make sure my family does not have to

3301

02:30:20,310 --> 02:30:17,141

worry about food should we get caught in

3302

02:30:22,740 --> 02:30:20,320

a real emergency situation introducing

3303

02:30:24,421 --> 02:30:22,750

Humana a healthy storable product that

3304

02:30:26,461 --> 02:30:24,431

tastes so good that you'll want to eat

3305

02:30:28,711 --> 02:30:26,471

it every day instead of just during

3306

02:30:30,961 --> 02:30:28,721

those times of duress all new manna

3307

02:30:34,350 --> 02:30:30,971

products have a 25 year shelf life our

3308

02:30:36,871 --> 02:30:34,360

msg and GMO free no preservatives and

3309

02:30:38,820 --> 02:30:36,881

are made in America with the new manna

3310

02:30:40,381 --> 02:30:38,830

pack in your home you'll be able to

3311

02:30:42,930 --> 02:30:40,391

sleep at night knowing that you

3312

02:30:46,140 --> 02:30:42,940

protected your family not only have I

3313

02:30:48,240 --> 02:30:46,150

tasted and tested I own it now you can

3314

02:30:50,461 --> 02:30:48,250

too just click on the new manna banner

3315

02:30:52,320 --> 02:30:50,471

on Jimmy Church radio.com and use the

3316

02:30:54,751 --> 02:30:52,330

promo code Jimmy when you order in

3317

02:30:56,850 --> 02:30:54,761

addition to a discount we'll send you an

3318

02:31:01,980 --> 02:30:56,860

autograph fade to black t-shirt

3319

02:31:04,831 --> 02:31:01,990

seriously gobekli tepe when you take the

3320

02:31:07,230 --> 02:31:04,841

beams from Central America with dashes

3321

02:31:09,841 --> 02:31:07,240

of Indonesian and African mixed in and

3322

02:31:12,690 --> 02:31:09,851

then roasted to the dark side of fade to

3323

02:31:15,841 --> 02:31:12,700

black you create the ultimate brew of

3324

02:31:19,621 --> 02:31:15,851

Fringe introducing the fade to black

3325

02:31:22,200 --> 02:31:19,631

blend from River moon coffee yes River

3326  
02:31:25,200 --> 02:31:22,210  
moons darkest customized roast was

3327  
02:31:28,200 --> 02:31:25,210  
created for the love of fade to black

3328  
02:31:30,871 --> 02:31:28,210  
the alchemy of masterful roasting and

3329  
02:31:32,109 --> 02:31:30,881  
smoking the beans is in every sip of

3330  
02:31:36,760 --> 02:31:32,119  
this full body

3331  
02:31:38,109 --> 02:31:36,770  
dark Java I need my coffee dog deep with

3332  
02:31:41,499 --> 02:31:38,119  
distinct bittersweet chocolate

3333  
02:31:43,749 --> 02:31:41,509  
highlights just like the bunker leaning

3334  
02:31:46,599 --> 02:31:43,759  
further into the darkness of the roast

3335  
02:31:49,300 --> 02:31:46,609  
is fade to black blend from River moon

3336  
02:31:51,399 --> 02:31:49,310  
coffee just click on the banner at Jimmy

3337  
02:31:54,699 --> 02:31:51,409  
Church radio.com and use the promo code

3338  
02:31:58,260 --> 02:31:54,709

F to B blend for 15% off of your order

3339

02:32:01,119 --> 02:31:58,270

today gobekli tepe

3340

02:32:03,579 --> 02:32:01,129

hey can we talk about something serious

3341

02:32:06,249 --> 02:32:03,589

for a minute your age getting old has

3342

02:32:08,619 --> 02:32:06,259

its perks but remember being a few years

3343

02:32:10,840 --> 02:32:08,629

younger you know your hair was thicker

3344

02:32:12,879 --> 02:32:10,850

you didn't have so many wrinkles that

3345

02:32:15,099 --> 02:32:12,889

extra weight wasn't haunting you and you

3346

02:32:17,260 --> 02:32:15,109

just felt better well we can't turn back

3347

02:32:20,289 --> 02:32:17,270

the clocks and go back 10 or 15 years

3348

02:32:22,659 --> 02:32:20,299

but you can start feeling and looking 10

3349

02:32:25,329 --> 02:32:22,669

or 15 years younger with nature's youth

3350

02:32:26,889 --> 02:32:25,339

RSF it's a doctor formulated daily

3351  
02:32:29,050 --> 02:32:26,899  
supplement that helps your body maintain

3352  
02:32:31,869 --> 02:32:29,060  
its peak performance and fight the aging

3353  
02:32:33,399 --> 02:32:31,879  
process imagine sleeping better looking

3354  
02:32:35,979 --> 02:32:33,409  
better and feeling better

3355  
02:32:37,929 --> 02:32:35,989  
see how Nature's youth RSF has helped

3356  
02:32:40,629 --> 02:32:37,939  
thousands of people just like you at

3357  
02:32:43,090 --> 02:32:40,639  
nature's youth calm nature's youth calm

3358  
02:32:44,499 --> 02:32:43,100  
the holidays are coming imagine how it

3359  
02:32:46,419 --> 02:32:44,509  
will feel when your family and friends

3360  
02:32:48,789 --> 02:32:46,429  
are asking you what you did to look so

3361  
02:32:51,069 --> 02:32:48,799  
good your secret will be nature's Youth

3362  
02:32:53,559 --> 02:32:51,079  
RSS it's time to start looking better

3363  
02:32:55,629 --> 02:32:53,569

and feeling better learn more in order

3364

02:33:05,910 --> 02:32:55,639

your nature's use RSS at nature's youth

3365

02:33:20,440 --> 02:33:09,640

it's not a lifestyle we chose we were

3366

02:33:25,220 --> 02:33:20,450

born this way k GRA radio.com this is KJ

3367

02:33:25,230 --> 02:33:36,631

[Music]

3368

02:33:40,410 --> 02:33:38,970

I'll be back fade to black I'm use to

3369

02:33:44,791 --> 02:33:40,420

meet church she can follow me on Twitter

3370

02:33:47,461 --> 02:33:44,801

at JD oh you can follow R is at R is

3371

02:33:51,810 --> 02:33:47,471

Stanford he's right there in Twitter

3372

02:33:54,751 --> 02:33:51,820

he's he's watching all of you he is the

3373

02:33:57,320 --> 02:33:54,761

central scrutinize er tonight now R is

3374

02:34:00,810 --> 02:33:57,330

let's take out let's take your equation

3375

02:34:03,810 --> 02:34:00,820

one step further let's take what you've

3376

02:34:06,841 --> 02:34:03,820

written here one step further and let's

3377

02:34:10,470 --> 02:34:06,851

suppose let's presuppose let's suppose

3378

02:34:15,930 --> 02:34:10,480

something that this simulation theory

3379

02:34:17,610 --> 02:34:15,940

the AI the AR possibility of the

3380

02:34:19,770 --> 02:34:17,620

blockchain and the Internet of Things

3381

02:34:23,180 --> 02:34:19,780

all of we take all of this into

3382

02:34:27,301 --> 02:34:23,190

consideration and suggest this that with

3383

02:34:33,631 --> 02:34:27,311

Internet routers in your home with Wi-Fi

3384

02:34:38,011 --> 02:34:33,641

with Bluetooth with the ability to send

3385

02:34:43,530 --> 02:34:38,021

and and upload programming into your

3386

02:34:47,961 --> 02:34:43,540

iron filled brain that we could be the

3387

02:34:51,961 --> 02:34:47,971

servants the worker bees the slaves of

3388

02:34:55,140 --> 02:34:51,971

the machine right now and we don't even

3389

02:34:57,720 --> 02:34:55,150

know it well you know that's a

3390

02:35:00,120 --> 02:34:57,730

possibility and that's the possibility

3391

02:35:01,560 --> 02:35:00,130

that was explored in the matrix right in

3392

02:35:05,280 --> 02:35:01,570

the end they were super intelligent

3393

02:35:07,140 --> 02:35:05,290

machines that were having humans live in

3394

02:35:09,780 --> 02:35:07,150

the matrix which was like an online

3395

02:35:11,671 --> 02:35:09,790

video game where we're all interacting

3396

02:35:14,600 --> 02:35:11,681

with each other right

3397

02:35:17,850 --> 02:35:14,610

so we could go one step further which is

3398

02:35:21,001 --> 02:35:17,860

that the idea that we're not we are

3399

02:35:24,720 --> 02:35:21,011

actually simulations within the

3400

02:35:28,230 --> 02:35:24,730

simulation that we're actually you know

3401

02:35:30,631 --> 02:35:28,240

AI as opposed to real beings who are

3402

02:35:32,280 --> 02:35:30,641

controlling characters so in the video

3403

02:35:34,470 --> 02:35:32,290

game parlance the question is are we

3404

02:35:36,091 --> 02:35:34,480

player characters which means that some

3405

02:35:38,011 --> 02:35:36,101

part of us is outside the game and

3406

02:35:39,631 --> 02:35:38,021

telling us what to do and that's what a

3407

02:35:41,070 --> 02:35:39,641

lot of the spiritual is particularly

3408

02:35:42,990 --> 02:35:41,080

Eastern traditions but even in the

3409

02:35:44,970 --> 02:35:43,000

Western religions the idea is there's a

3410

02:35:48,690 --> 02:35:44,980

soul that's independent of the body and

3411

02:35:50,400 --> 02:35:48,700

it comes in to this 3d rendered world or

3412

02:35:52,890 --> 02:35:50,410

are we NPC

3413

02:35:57,241 --> 02:35:52,900

which are non player characters and

3414

02:35:59,581 --> 02:35:57,251

games that are just AI and so you know I

3415

02:36:02,491 --> 02:35:59,591

had mentioned this Oxford researcher

3416

02:36:05,070 --> 02:36:02,501

Nick Bostrom earlier and you know he put

3417

02:36:07,741 --> 02:36:05,080

forth the simulation argument back in

3418

02:36:10,201 --> 02:36:07,751

2003 or 2004 and wrote a paper on it and

3419

02:36:11,791 --> 02:36:10,211

his argument was that we are probably

3420

02:36:14,341 --> 02:36:11,801

not just that we're probably in a

3421

02:36:17,310 --> 02:36:14,351

simulation but we're more likely to be

3422

02:36:19,171 --> 02:36:17,320

simulated consciousness than real based

3423

02:36:20,820 --> 02:36:19,181

reality consciousness and his his

3424

02:36:23,570 --> 02:36:20,830

argument kind of went this way he said

3425

02:36:26,280 --> 02:36:23,580

let's suppose that at some point

3426  
02:36:28,110 --> 02:36:26,290  
humanity reaches what he called a post

3427  
02:36:31,201 --> 02:36:28,120  
human stage but I called a simulation

3428  
02:36:34,470 --> 02:36:31,211  
point which is the point at which we can

3429  
02:36:37,440 --> 02:36:34,480  
create an artificial world a simulated

3430  
02:36:39,421 --> 02:36:37,450  
reality that's so real that we aren't

3431  
02:36:42,030 --> 02:36:39,431  
able to distinguish between the physical

3432  
02:36:44,060 --> 02:36:42,040  
world and the simulated world right so

3433  
02:36:46,230 --> 02:36:44,070  
if a civilization reaches that point

3434  
02:36:48,570 --> 02:36:46,240  
where it can create what he calls an

3435  
02:36:51,360 --> 02:36:48,580  
ancestor simulation which means you go

3436  
02:36:52,440 --> 02:36:51,370  
back and you start from before there was

3437  
02:36:55,501 --> 02:36:52,450  
technology you go

3438  
02:36:56,850 --> 02:36:55,511

kinda like a civilization game right Sid

3439

02:36:59,461 --> 02:36:56,860

Meier civilization or some of these

3440

02:37:02,970 --> 02:36:59,471

mobile games where you build up from

3441

02:37:07,261 --> 02:37:02,980

hots to skyscrapers eventually and that

3442

02:37:10,591 --> 02:37:07,271

if we if a civilization ever reaches

3443

02:37:12,600 --> 02:37:10,601

that point either one they won't do any

3444

02:37:14,970 --> 02:37:12,610

simulations because it'll be forbidden

3445

02:37:18,241 --> 02:37:14,980

for whatever reason or two they will

3446

02:37:19,951 --> 02:37:18,251

create an ancestor simulation and if

3447

02:37:21,751 --> 02:37:19,961

they create one they're more likely to

3448

02:37:23,400 --> 02:37:21,761

create lots of simulations that's the

3449

02:37:25,530 --> 02:37:23,410

whole point of simulations is you can

3450

02:37:28,161 --> 02:37:25,540

run on them and you can watch what

3451  
02:37:30,480 --> 02:37:28,171  
happens even today you know we have

3452  
02:37:32,220 --> 02:37:30,490  
companies that will do like Monte Carlo

3453  
02:37:33,810 --> 02:37:32,230  
simulations to figure out what are the

3454  
02:37:36,121 --> 02:37:33,820  
likely results of things and they'll run

3455  
02:37:37,890 --> 02:37:36,131  
thousands of these simulations so the

3456  
02:37:40,081 --> 02:37:37,900  
idea was that if a civilization ever

3457  
02:37:42,211 --> 02:37:40,091  
reached that point it would run lots of

3458  
02:37:45,211 --> 02:37:42,221  
ancestor simulations and those

3459  
02:37:47,520 --> 02:37:45,221  
simulations would use artificial

3460  
02:37:50,161 --> 02:37:47,530  
consciousness so the people inside those

3461  
02:37:53,041 --> 02:37:50,171  
simulations are just artificial and in

3462  
02:37:55,440 --> 02:37:53,051  
since there are way more artificial

3463  
02:37:56,940 --> 02:37:55,450

simulations then there is base reality

3464

02:37:58,951 --> 02:37:56,950

there's only one based reality for

3465

02:38:00,570 --> 02:37:58,961

example that means that if you just do a

3466

02:38:02,820 --> 02:38:00,580

simple statistical analysis and say

3467

02:38:03,390 --> 02:38:02,830

let's say there's seven billion or

3468

02:38:04,501 --> 02:38:03,400

whatever number

3469

02:38:07,051 --> 02:38:04,511

you want to use in the real world

3470

02:38:08,881 --> 02:38:07,061

there's a hundred billion artificial

3471

02:38:12,331 --> 02:38:08,891

these simulated consciousnesses

3472

02:38:14,520 --> 02:38:12,341

eventually so if you can do simple

3473

02:38:16,020 --> 02:38:14,530

probability and say it's more likely

3474

02:38:17,511 --> 02:38:16,030

that we're one of the hundred billion

3475

02:38:19,740 --> 02:38:17,521

than one of the seven billion just

3476

02:38:21,930 --> 02:38:19,750

probabilistically speaking right so that

3477

02:38:24,390 --> 02:38:21,940

was his argument which you know it's an

3478

02:38:27,301 --> 02:38:24,400

interesting one on that we're not just

3479

02:38:32,761 --> 02:38:27,311

being in the a high but we may be the AI

3480

02:38:35,070 --> 02:38:32,771

right well now and this is where the

3481

02:38:38,280 --> 02:38:35,080

question of free will comes up where

3482

02:38:40,740 --> 02:38:38,290

somebody the the argument to all of this

3483

02:38:43,591 --> 02:38:40,750

is what what about free will it can't be

3484

02:38:46,261 --> 02:38:43,601

a simulation because I made a choice

3485

02:38:49,171 --> 02:38:46,271

today between a hamburger and a salad

3486

02:38:52,501 --> 02:38:49,181

and I chose the hamburger that is free

3487

02:38:55,950 --> 02:38:52,511

will it can't be a simulation because of

3488

02:39:00,950 --> 02:38:55,960

free will and the counter to that which

3489

02:39:03,660 --> 02:39:00,960

is so easy is this that all

3490

02:39:07,261 --> 02:39:03,670

probabilities play out in mathematics

3491

02:39:10,801 --> 02:39:07,271

going back to the Big Bang and that

3492

02:39:14,251 --> 02:39:10,811

atoms and decisions and electrons

3493

02:39:16,680 --> 02:39:14,261

neurons and light are going to play out

3494

02:39:20,610 --> 02:39:16,690

the way that they are going to play out

3495

02:39:23,280 --> 02:39:20,620

you cannot change that therefore your

3496

02:39:26,700 --> 02:39:23,290

freewill decision today for the

3497

02:39:33,660 --> 02:39:26,710

hamburger is a mathematical one you

3498

02:39:35,520 --> 02:39:33,670

would have never chosen the salad was

3499

02:39:37,650 --> 02:39:35,530

mathematically speaking that's the

3500

02:39:39,211 --> 02:39:37,660

possibility that you're at but you know

3501  
02:39:41,700 --> 02:39:39,221  
as a video game designer I would say

3502  
02:39:44,730 --> 02:39:41,710  
okay have you ever played a video game

3503  
02:39:47,581 --> 02:39:44,740  
like Second Life or Grand Theft Auto

3504  
02:39:49,261 --> 02:39:47,591  
where there is open world right so it

3505  
02:39:50,820 --> 02:39:49,271  
looks like you can do anything in those

3506  
02:39:52,980 --> 02:39:50,830  
world so it looks like you can just go

3507  
02:39:55,680 --> 02:39:52,990  
create a house create a hamburger or a

3508  
02:39:58,020 --> 02:39:55,690  
pizza but really there's this there's

3509  
02:39:59,990 --> 02:39:58,030  
only a set of things that you can really

3510  
02:40:02,041 --> 02:40:00,000  
do from the game designers perspective

3511  
02:40:04,381 --> 02:40:02,051  
there's actually a limited number of

3512  
02:40:06,421 --> 02:40:04,391  
choices and those choices lead to

3513  
02:40:09,030 --> 02:40:06,431

another limited set of choices so you

3514

02:40:11,461 --> 02:40:09,040

get this big grid of possible

3515

02:40:12,541 --> 02:40:11,471

possibilities right in a video game so

3516

02:40:14,660 --> 02:40:12,551

you're still you think you're using

3517

02:40:17,250 --> 02:40:14,670

freewill and you are to a certain extent

3518

02:40:18,870 --> 02:40:17,260

but the choices are limited

3519

02:40:22,469 --> 02:40:18,880

you know by the parameters of the

3520

02:40:24,800 --> 02:40:22,479

simulation itself and so this this kind

3521

02:40:27,120 --> 02:40:24,810

of ties into the whole idea of quantum

3522

02:40:28,830 --> 02:40:27,130

physics and the idea of the particle

3523

02:40:32,309 --> 02:40:28,840

versus the wave and what are these

3524

02:40:34,139 --> 02:40:32,319

probabilities right and most of your

3525

02:40:36,240 --> 02:40:34,149

listeners may have heard me talk about

3526

02:40:39,080 --> 02:40:36,250

this before or somebody else where the

3527

02:40:41,550 --> 02:40:39,090

idea is that if it's if a particle is a

3528

02:40:44,370 --> 02:40:41,560

solid particle it's only in one place

3529

02:40:45,809 --> 02:40:44,380

but if it's a wave it's a probability

3530

02:40:47,280 --> 02:40:45,819

and let's say you're in a theater and

3531

02:40:48,750 --> 02:40:47,290

there's a bunch of states it could be in

3532

02:40:51,990 --> 02:40:48,760

any of those seats and there's a certain

3533

02:40:54,900 --> 02:40:52,000

probability of the particle being in all

3534

02:40:57,570 --> 02:40:54,910

those seats and what causes the collapse

3535

02:40:59,760 --> 02:40:57,580

of that wave from a set of probabilities

3536

02:41:01,980 --> 02:40:59,770

to a single reality well nobody really

3537

02:41:03,660 --> 02:41:01,990

knows but the best answer physicists

3538

02:41:07,170 --> 02:41:03,670

have been able to come up with is it's

3539

02:41:10,530 --> 02:41:07,180

the act of observation that collapses

3540

02:41:12,630 --> 02:41:10,540

the probability wave into the single

3541

02:41:14,250 --> 02:41:12,640

reality that you're seeing and that's

3542

02:41:16,080 --> 02:41:14,260

why we only see one reality at a time

3543

02:41:18,750 --> 02:41:16,090

now the question is do those other

3544

02:41:22,050 --> 02:41:18,760

realities the problem mathematical

3545

02:41:25,139 --> 02:41:22,060

probabilities actually exist or are they

3546

02:41:27,570 --> 02:41:25,149

just probabilities and you think of it

3547

02:41:29,849 --> 02:41:27,580

in terms of a chess game in chess you

3548

02:41:31,349 --> 02:41:29,859

can lay out all the steps that might you

3549

02:41:33,540 --> 02:41:31,359

could take and then you can go out to

3550

02:41:36,420 --> 02:41:33,550

have probabilities for the next steps do

3551

02:41:38,880 --> 02:41:36,430

those really exist until you actually

3552

02:41:41,340 --> 02:41:38,890

make the move then you see one of those

3553

02:41:43,440 --> 02:41:41,350

realities play out and so some people

3554

02:41:47,010 --> 02:41:43,450

think you know in the simulation

3555

02:41:48,330 --> 02:41:47,020

hypothesis that that it's like a video

3556

02:41:50,790 --> 02:41:48,340

game if you log in the world of warcraft

3557

02:41:53,160 --> 02:41:50,800

and nobody's there you know does that

3558

02:41:55,440 --> 02:41:53,170

world exist but when you're there and

3559

02:41:58,349 --> 02:41:55,450

you make a choice it has in its memory

3560

02:42:00,090 --> 02:41:58,359

all the possible things you could do but

3561

02:42:01,800 --> 02:42:00,100

when you make a choice it's that's

3562

02:42:04,860 --> 02:42:01,810

observing it and that causes it to

3563

02:42:07,110 --> 02:42:04,870

render that world around you so I would

3564

02:42:09,059 --> 02:42:07,120

just say that I don't think that it

3565

02:42:11,400 --> 02:42:09,069

those are mutually exclusive free will

3566

02:42:12,389 --> 02:42:11,410

and a simulation don't have to be

3567

02:42:14,790 --> 02:42:12,399

mutually exclusive

3568

02:42:16,110 --> 02:42:14,800

because you you just may be limited to

3569

02:42:18,120 --> 02:42:16,120

the choices but you're still able to

3570

02:42:21,690 --> 02:42:18,130

make choices within those set of choices

3571

02:42:24,059 --> 02:42:21,700

and and the choice is an illusion see

3572

02:42:28,349 --> 02:42:24,069

the choice you think you've made the

3573

02:42:29,801 --> 02:42:28,359

choice but it was going to play out that

3574

02:42:33,421 --> 02:42:29,811

way anyway

3575

02:42:37,720 --> 02:42:33,431

the future is already a mathematical

3576

02:42:40,541 --> 02:42:37,730

equation that it's playing itself out

3577

02:42:43,480 --> 02:42:40,551

and that could be although I would say

3578

02:42:45,610 --> 02:42:43,490

that it's maybe a set of probabilities

3579

02:42:47,980 --> 02:42:45,620

of the future and so it's not that

3580

02:42:49,631 --> 02:42:47,990

there's only one and that's why it's

3581

02:42:51,551 --> 02:42:49,641

interesting to what for the simulations

3582

02:42:54,520 --> 02:42:51,561

to play out is to see which of the paths

3583

02:42:56,381 --> 02:42:54,530

do people take but it's a limited set of

3584

02:42:58,900 --> 02:42:56,391

paths as opposed to a completely

3585

02:43:00,400 --> 02:42:58,910

freewill unlimited set it would be my

3586

02:43:04,270 --> 02:43:00,410

opinion but you know we're speculating

3587

02:43:06,341 --> 02:43:04,280

that well it's so interesting to start

3588

02:43:08,801 --> 02:43:06,351

to think about this because it gets

3589

02:43:11,291 --> 02:43:08,811

scariest as you start to answer the

3590

02:43:14,051 --> 02:43:11,301

questions and the more that you do it

3591

02:43:17,411 --> 02:43:14,061

leans more and more towards the the

3592

02:43:19,390 --> 02:43:17,421

simulation theory and if you go back and

3593

02:43:20,951 --> 02:43:19,400

look at your past look at your past and

3594

02:43:24,520 --> 02:43:20,961

to go well you know I wouldn't I

3595

02:43:26,980 --> 02:43:24,530

wouldn't have gone to MIT and graduated

3596

02:43:29,261 --> 02:43:26,990

if I hadn't across the street that day

3597

02:43:31,961 --> 02:43:29,271

because that day somebody said to me and

3598

02:43:33,761 --> 02:43:31,971

I changed my mind and I didn't go and it

3599

02:43:36,701 --> 02:43:33,771

said I went left and the next thing you

3600

02:43:39,970 --> 02:43:36,711

know I because of that decision I went

3601  
02:43:42,220 --> 02:43:39,980  
to MIT okay well you know so that that

3602  
02:43:45,190 --> 02:43:42,230  
that was freewill playing itself out and

3603  
02:43:47,110 --> 02:43:45,200  
it made me who I am today the argument

3604  
02:43:51,281 --> 02:43:47,120  
to that is you would have made that

3605  
02:43:55,390 --> 02:43:51,291  
decision anyway right it's just it's

3606  
02:43:59,650 --> 02:43:55,400  
just the way that that the Big Bang

3607  
02:44:02,591 --> 02:43:59,660  
played itself out all the way to now and

3608  
02:44:05,140 --> 02:44:02,601  
we'll continue mathematically to play

3609  
02:44:07,480 --> 02:44:05,150  
out in the future it only seems like

3610  
02:44:10,810 --> 02:44:07,490  
free will because you're in a simulation

3611  
02:44:13,180 --> 02:44:10,820  
right and so you're taking the point of

3612  
02:44:15,970 --> 02:44:13,190  
view that it's more deterministic where

3613  
02:44:18,371 --> 02:44:15,980

you know X happened in the past and

3614

02:44:19,871 --> 02:44:18,381

alito Y happening now no matter what is

3615

02:44:22,841 --> 02:44:19,881

right I think it's free will

3616

02:44:24,970 --> 02:44:22,851

yeah free will is an illusion it could

3617

02:44:27,011 --> 02:44:24,980

be that's one that's one view but you

3618

02:44:30,011 --> 02:44:27,021

know Stephen Hawking made the point that

3619

02:44:31,900 --> 02:44:30,021

that and this gets into another area

3620

02:44:32,921 --> 02:44:31,910

another can of worms which I don't know

3621

02:44:34,301 --> 02:44:32,931

we want to go into tonight

3622

02:44:36,551 --> 02:44:34,311

but he made the point that certain

3623

02:44:38,770 --> 02:44:36,561

particles disappear into a black hole

3624

02:44:42,091 --> 02:44:38,780

and the particles that come out are not

3625

02:44:43,570 --> 02:44:42,101

related to those and he said that that

3626

02:44:45,070 --> 02:44:43,580

determinism

3627

02:44:47,230 --> 02:44:45,080

broke down which means you couldn't

3628

02:44:48,940 --> 02:44:47,240

really tell the history and so the

3629

02:44:51,190 --> 02:44:48,950

question is is the history that we

3630

02:44:53,051 --> 02:44:51,200

remember something that actually

3631

02:44:55,330 --> 02:44:53,061

happened or are they like implanted

3632

02:44:57,280 --> 02:44:55,340

memories when we couldn't actually be

3633

02:44:59,830 --> 02:44:57,290

sure that the simulation like somebody

3634

02:45:01,180 --> 02:44:59,840

stop the simulation changed it and reran

3635

02:45:03,280 --> 02:45:01,190

it and now we have a different history

3636

02:45:05,560 --> 02:45:03,290

or a different memory of what might have

3637

02:45:08,080 --> 02:45:05,570

happened before right and now we might

3638

02:45:09,910 --> 02:45:08,090

go a different way than we did before

3639

02:45:13,330 --> 02:45:09,920

right in votes those cases there's not

3640

02:45:16,000 --> 02:45:13,340

free will but they're that what's making

3641

02:45:18,220 --> 02:45:16,010

that deterministic path changes I mean

3642

02:45:19,511 --> 02:45:18,230

does the past exist you know I think in

3643

02:45:21,370 --> 02:45:19,521

the spiritual traditions they tend to

3644

02:45:23,950 --> 02:45:21,380

take you know more of a view that we

3645

02:45:25,810 --> 02:45:23,960

have free will but that we also have

3646

02:45:27,250 --> 02:45:25,820

certain things that we were meant to do

3647

02:45:28,750 --> 02:45:27,260

in this life and that that's what I

3648

02:45:30,670 --> 02:45:28,760

wrote about in my book treasure hunt and

3649

02:45:32,801 --> 02:45:30,680

that we get the clues where the guy

3650

02:45:35,740 --> 02:45:32,811

across the street is telling you to go

3651  
02:45:39,520 --> 02:45:35,750  
to MIT you know was a clue placed there

3652  
02:45:42,670 --> 02:45:39,530  
by those of the part of us that's not in

3653  
02:45:44,261 --> 02:45:42,680  
this 3d simulated reality as a reminder

3654  
02:45:46,540 --> 02:45:44,271  
that this was the path that I was

3655  
02:45:48,910 --> 02:45:46,550  
supposed to follow so I you can make

3656  
02:45:51,910 --> 02:45:48,920  
arguments either way I guess well what

3657  
02:45:55,990 --> 02:45:51,920  
do we so when we when we bring in

3658  
02:45:59,440 --> 02:45:56,000  
consciousness and awakening into the

3659  
02:46:02,500 --> 02:45:59,450  
picture how does that separate from that

3660  
02:46:05,410 --> 02:46:02,510  
3d reality that most people live in

3661  
02:46:07,090 --> 02:46:05,420  
where there there isn't a parallel world

3662  
02:46:10,720 --> 02:46:07,100  
there isn't quantum mechanics or quantum

3663  
02:46:14,530 --> 02:46:10,730

theory there isn't anything there isn't

3664

02:46:17,710 --> 02:46:14,540

any life after death right that you you

3665

02:46:19,930 --> 02:46:17,720

die and everything ends you know these

3666

02:46:22,450 --> 02:46:19,940

two worlds are starting to collide and

3667

02:46:24,310 --> 02:46:22,460

in simulation theory that's where it

3668

02:46:26,230 --> 02:46:24,320

starts to get really really interesting

3669

02:46:30,850 --> 02:46:26,240

too as well because the two can't exist

3670

02:46:33,600 --> 02:46:30,860

they can't go exist right because you

3671

02:46:36,400 --> 02:46:33,610

could say in mainstream science

3672

02:46:40,261 --> 02:46:36,410

scientists today right we take the point

3673

02:46:43,120 --> 02:46:40,271

of view that we're just cells and

3674

02:46:44,530 --> 02:46:43,130

consciousness is just these cells

3675

02:46:45,430 --> 02:46:44,540

interacting with each other and we

3676

02:46:47,470 --> 02:46:45,440

haven't figured it out yet but

3677

02:46:50,560 --> 02:46:47,480

eventually we will figure out how to

3678

02:46:53,140 --> 02:46:50,570

make cells be conscious and this ties

3679

02:46:56,170 --> 02:46:53,150

back to our idea of the AI being

3680

02:46:57,540 --> 02:46:56,180

self-aware right at which point is it

3681

02:46:59,410 --> 02:46:57,550

conscious

3682

02:47:01,269 --> 02:46:59,420

whereas I think in the spiritual

3683

02:47:05,050 --> 02:47:01,279

traditions we would argue that there is

3684

02:47:08,080 --> 02:47:05,060

consciousness that inhabits the physical

3685

02:47:09,670 --> 02:47:08,090

3d world which is more like a player of

3686

02:47:11,740 --> 02:47:09,680

a video game right I can bring up world

3687

02:47:14,500 --> 02:47:11,750

of warcraft or dota2 that's my character

3688

02:47:16,269 --> 02:47:14,510

but that's not me right and so I think

3689

02:47:18,580 --> 02:47:16,279

the simulation hypothesis is interesting

3690

02:47:20,920 --> 02:47:18,590

because you know most scientists can

3691

02:47:24,790 --> 02:47:20,930

agree that that's a very real

3692

02:47:27,429 --> 02:47:24,800

possibility right because if they say

3693

02:47:29,320 --> 02:47:27,439

it's just cells that die well that could

3694

02:47:32,410 --> 02:47:29,330

be a simulation and once the simulation

3695

02:47:34,420 --> 02:47:32,420

is over it's done right we're just this

3696

02:47:35,769 --> 02:47:34,430

sort of artificially simulated

3697

02:47:38,500 --> 02:47:35,779

consciousness within the game you turn

3698

02:47:40,769 --> 02:47:38,510

the game servers off and it's gone you

3699

02:47:43,599 --> 02:47:40,779

restart it and it's a whole new thing

3700

02:47:46,210 --> 02:47:43,609

but I think equally valid is the point

3701

02:47:49,059 --> 02:47:46,220

that this 3d reality is a kind of a

3702

02:47:51,790 --> 02:47:49,069

simulation right whereas the Yogi's you

3703

02:47:54,399 --> 02:47:51,800

know talk about Maya the world of

3704

02:47:57,160 --> 02:47:54,409

illusion that we're in and they use the

3705

02:47:59,550 --> 02:47:57,170

analogy of dreams that this world is

3706

02:48:02,530 --> 02:47:59,560

like a collective dream or a collective

3707

02:48:04,899 --> 02:48:02,540

MMORPG that I would say has a video game

3708

02:48:07,000 --> 02:48:04,909

designer but then in this dream we can

3709

02:48:08,620 --> 02:48:07,010

dream we create dreams when we go to

3710

02:48:10,540 --> 02:48:08,630

sleep and you've probably had that

3711

02:48:12,340 --> 02:48:10,550

situation where in the dream you wake up

3712

02:48:13,809 --> 02:48:12,350

but you haven't actually woken up you're

3713

02:48:16,510 --> 02:48:13,819

still in a dream right it's like the

3714

02:48:18,519 --> 02:48:16,520

dream within the dream but but anyway I

3715

02:48:21,580 --> 02:48:18,529

guess my broader point is I think the

3716

02:48:23,950 --> 02:48:21,590

simulation hypothesis is a bridge that

3717

02:48:26,109 --> 02:48:23,960

you know bridges these two worlds that

3718

02:48:28,330 --> 02:48:26,119

don't agree on a lot of stuff well I

3719

02:48:30,429 --> 02:48:28,340

would have thought I would have said

3720

02:48:33,040 --> 02:48:30,439

years ago that science fiction was

3721

02:48:36,729 --> 02:48:33,050

science fiction and and these thoughts

3722

02:48:39,729 --> 02:48:36,739

of living in a simulation were just you

3723

02:48:41,740 --> 02:48:39,739

know pure fantasy and that most people

3724

02:48:44,920 --> 02:48:41,750

wouldn't be interested in the subject at

3725

02:48:48,490 --> 02:48:44,930

all and today you look at not only

3726

02:48:51,780 --> 02:48:48,500

gaming and how popular gaming is and how

3727

02:48:54,580 --> 02:48:51,790

people want to get into these you know

3728

02:48:57,460 --> 02:48:54,590

first-person shooter Ault you know these

3729

02:49:01,450 --> 02:48:57,470

alternate reality type games world of

3730

02:49:04,840 --> 02:49:01,460

warcraft or guru mist you know and where

3731

02:49:07,210 --> 02:49:04,850

you are totally a merciful and then you

3732

02:49:10,400 --> 02:49:07,220

have the other part of it we're not

3733

02:49:13,700 --> 02:49:10,410

necessarily gamers but

3734

02:49:16,131 --> 02:49:13,710

Sims and the ability to create your own

3735

02:49:19,341 --> 02:49:16,141

character and build your own things and

3736

02:49:21,770 --> 02:49:19,351

and and an alternate personality for

3737

02:49:24,350 --> 02:49:21,780

yourself you're building a you know your

3738

02:49:28,400 --> 02:49:24,360

character that you want to look like

3739

02:49:29,870 --> 02:49:28,410

that you desire and and the the worlds

3740

02:49:32,120 --> 02:49:29,880

that you're living in socially and

3741

02:49:36,320 --> 02:49:32,130

interacting with inside of these games

3742

02:49:39,080 --> 02:49:36,330

people are actually very okay with it I

3743

02:49:40,881 --> 02:49:39,090

mean yeah they take it very seriously I

3744

02:49:42,740 --> 02:49:40,891

mean if I mentioned Second Life earlier

3745

02:49:44,120 --> 02:49:42,750

you mentioned the Sims right in Second

3746

02:49:46,790 --> 02:49:44,130

Life you have characters that get

3747

02:49:47,960 --> 02:49:46,800

married right with each other and then

3748

02:49:50,120 --> 02:49:47,970

they cheat with other people

3749

02:49:52,160 --> 02:49:50,130

like it becomes a very serious but if

3750

02:49:54,080 --> 02:49:52,170

you've watched ready player one which

3751

02:49:56,690 --> 02:49:54,090

just came out recently yeah which is

3752

02:49:58,700 --> 02:49:56,700

about virtual reality and so so I'm

3753

02:50:00,680 --> 02:49:58,710

actually working on a book now about the

3754

02:50:02,480 --> 02:50:00,690

simulation hypothesis which is based on

3755

02:50:04,761 --> 02:50:02,490

an article that I wrote that's up on

3756

02:50:07,160 --> 02:50:04,771

hacker noon now with the stages of

3757

02:50:10,011 --> 02:50:07,170

videogame technology and how would we

3758

02:50:12,740 --> 02:50:10,021

get from where we are today to a fully

3759

02:50:14,540 --> 02:50:12,750

immersive matrix like world where we

3760

02:50:17,000 --> 02:50:14,550

couldn't tell the difference and you

3761

02:50:18,860 --> 02:50:17,010

know virtual reality is starting to move

3762

02:50:21,560 --> 02:50:18,870

us in that direction I mean if you put

3763

02:50:23,900 --> 02:50:21,570

on virtual reality glasses you are that

3764

02:50:25,820 --> 02:50:23,910

character like in in the Oasis and then

3765

02:50:27,440 --> 02:50:25,830

in that case they had in ready player

3766

02:50:28,910 --> 02:50:27,450

one they had these haptic suits so you

3767

02:50:30,591 --> 02:50:28,920

could actually feel what was going on

3768

02:50:32,750 --> 02:50:30,601

but we're seeing the beginnings of that

3769

02:50:36,680 --> 02:50:32,760

I have some friends who created a ping

3770

02:50:38,631 --> 02:50:36,690

pong game for HTC for the vibe and so I

3771

02:50:41,030 --> 02:50:38,641

was playing this game and even though it

3772

02:50:43,940 --> 02:50:41,040

wasn't photorealistic it felt really

3773

02:50:46,310 --> 02:50:43,950

real so real that I thought I was

3774

02:50:48,860 --> 02:50:46,320

holding a paddle and playing I set the

3775

02:50:50,870 --> 02:50:48,870

paddle down on the table right just

3776

02:50:53,000 --> 02:50:50,880

instinctively well it turns out there

3777

02:50:54,860 --> 02:50:53,010

was no table it was just virtual so the

3778

02:50:56,810 --> 02:50:54,870

controller fell to the floor and then I

3779

02:50:59,091 --> 02:50:56,820

leaned against the table of course there

3780

02:51:01,520 --> 02:50:59,101

was no table so I almost fell over but

3781

02:51:03,890 --> 02:51:01,530

you can see how immersive virtual

3782

02:51:05,960 --> 02:51:03,900

reality is starting to be and eventually

3783

02:51:07,580 --> 02:51:05,970

you can see where we might be able to

3784

02:51:10,341 --> 02:51:07,590

beam that stuff to the retina without

3785

02:51:12,560 --> 02:51:10,351

needing the glasses and then you're

3786

02:51:13,761 --> 02:51:12,570

really in kind of an immersive world so

3787

02:51:15,920 --> 02:51:13,771

I think more people are interested in

3788

02:51:18,860 --> 02:51:15,930

this topic today because we're seeing

3789

02:51:20,780 --> 02:51:18,870

how immersive video games can be and

3790

02:51:23,960 --> 02:51:20,790

they get to the point where you know we

3791

02:51:25,519 --> 02:51:23,970

may be inside a very sophisticated

3792

02:51:26,960 --> 02:51:25,529

a videogame I mean think of where the

3793

02:51:28,580 --> 02:51:26,970

technology will be a hundred years from

3794

02:51:31,519 --> 02:51:28,590

now right video games are only like 30

3795

02:51:33,200 --> 02:51:31,529

years old or 200 years from now or a

3796

02:51:35,019 --> 02:51:33,210

thousand years from now how

3797

02:51:37,400 --> 02:51:35,029

sophisticated with the video games be

3798

02:51:39,320 --> 02:51:37,410

and and Elon Musk made that argument

3799

02:51:42,080 --> 02:51:39,330

where he said you know we had pong and

3800

02:51:45,860 --> 02:51:42,090

in the 70s which was a dot and some

3801  
02:51:48,170 --> 02:51:45,870  
lines and now we have virtual reality

3802  
02:51:49,940 --> 02:51:48,180  
where you put on the glasses and you it

3803  
02:51:51,830 --> 02:51:49,950  
feels like you're there and then we have

3804  
02:51:55,250 --> 02:51:51,840  
games like no man's sky I don't know if

3805  
02:51:58,190 --> 02:51:55,260  
you know ya know infinite right infinite

3806  
02:52:00,410 --> 02:51:58,200  
do they have like 18 quintillion planets

3807  
02:52:03,290 --> 02:52:00,420  
yes yeah turns out because that's what

3808  
02:52:04,550 --> 02:52:03,300  
64 bits yeah that's the number that's 64

3809  
02:52:07,460 --> 02:52:04,560  
bits will get you and each of those are

3810  
02:52:09,019 --> 02:52:07,470  
procedurally generated yeah right so

3811  
02:52:11,660 --> 02:52:09,029  
they look like they're unique but

3812  
02:52:13,610 --> 02:52:11,670  
they're being generated by some set of

3813  
02:52:15,979 --> 02:52:13,620

rules and so we you know we're looking

3814

02:52:19,519 --> 02:52:15,989

out at the world and we're seeing you

3815

02:52:22,670 --> 02:52:19,529

know billions of 100 billion galaxies

3816

02:52:23,210 --> 02:52:22,680

right out there with 100 billion stars

3817

02:52:25,820 --> 02:52:23,220

each

3818

02:52:28,729 --> 02:52:25,830

are those procedurally generated are

3819

02:52:32,330 --> 02:52:28,739

they really there you know and what does

3820

02:52:33,889 --> 02:52:32,340

it mean for them to be there so so in

3821

02:52:35,840 --> 02:52:33,899

that that of course would intersect with

3822

02:52:36,830 --> 02:52:35,850

the alien life and UFO question but I

3823

02:52:39,200 --> 02:52:36,840

don't think we want to go there to the

3824

02:52:43,309 --> 02:52:39,210

yeah we'll do that at another time but I

3825

02:52:46,010 --> 02:52:43,319

do have a week there's a that's a series

3826  
02:52:48,440 --> 02:52:46,020  
of shows I have a friend I mean a friend

3827  
02:52:53,510 --> 02:52:48,450  
friend a friend that I've known for

3828  
02:52:55,460 --> 02:52:53,520  
about 20 years and he his company this

3829  
02:52:59,690 --> 02:52:55,470  
is a friend friend I want to say this

3830  
02:53:02,510 --> 02:52:59,700  
his company he went through the film

3831  
02:53:04,910 --> 02:53:02,520  
industry here and software designing and

3832  
02:53:13,610 --> 02:53:04,920  
shading and lighting and stuff but his

3833  
02:53:20,929 --> 02:53:13,620  
company now is AR and he it is real and

3834  
02:53:24,679 --> 02:53:20,939  
other words they develop okay for

3835  
02:53:30,370 --> 02:53:24,689  
instance he can go in take your house

3836  
02:53:34,190 --> 02:53:30,380  
and recreate it I mean it's done with

3837  
02:53:36,650 --> 02:53:34,200  
photography and absolutely walk around

3838  
02:53:39,860 --> 02:53:36,660

your neighborhood

3839

02:53:41,690 --> 02:53:39,870

he did Palm Springs right where you're

3840

02:53:45,381 --> 02:53:41,700

in a house in Palm Springs and you walk

3841

02:53:49,850 --> 02:53:45,391

outside and you go anywhere in pot and

3842

02:53:51,890 --> 02:53:49,860

it is real real real you cannot tell the

3843

02:53:54,110 --> 02:53:51,900

difference it's like you're out there

3844

02:53:55,820 --> 02:53:54,120

it's not like you're out there you are

3845

02:53:57,110 --> 02:53:55,830

there you're in the middle of it and you

3846

02:54:01,070 --> 02:53:57,120

would not be able to tell the difference

3847

02:54:05,930 --> 02:54:01,080

because he's imaged it with real images

3848

02:54:09,950 --> 02:54:05,940

it's absolutely real-time spot-on crazy

3849

02:54:12,560 --> 02:54:09,960

freaked out AR and it's it's here it's

3850

02:54:15,740 --> 02:54:12,570

it's an incredible technology that he

3851  
02:54:16,910 --> 02:54:15,750  
has developed yeah and and it's getting

3852  
02:54:18,801 --> 02:54:16,920  
better all the time so that's

3853  
02:54:21,290 --> 02:54:18,811  
interesting if he's got photorealistic

3854  
02:54:24,350 --> 02:54:21,300  
AR because the idea with these

3855  
02:54:28,040 --> 02:54:24,360  
light-filled AR which is just becoming

3856  
02:54:29,990 --> 02:54:28,050  
available is that it figures out now

3857  
02:54:32,690 --> 02:54:30,000  
what light would come to your eye

3858  
02:54:34,910 --> 02:54:32,700  
based on what angle you're looking at

3859  
02:54:37,910 --> 02:54:34,920  
and it only has to render that part of

3860  
02:54:39,410 --> 02:54:37,920  
it so that it optimizes the rendering so

3861  
02:54:41,360 --> 02:54:39,420  
you feel like you're really there which

3862  
02:54:43,790 --> 02:54:41,370  
is what all this 3d technology is based

3863  
02:54:46,160 --> 02:54:43,800

on going back to doom which was the

3864

02:54:47,480 --> 02:54:46,170

first first-person shooter right it gave

3865

02:54:49,640 --> 02:54:47,490

you a sense of perspective so in this

3866

02:54:51,560 --> 02:54:49,650

case he was able to image actual

3867

02:54:53,210 --> 02:54:51,570

physical places and create probably 3d

3868

02:54:55,400 --> 02:54:53,220

models based off that's right that's

3869

02:54:59,511 --> 02:54:55,410

right it's incredible to see I mean it's

3870

02:55:01,820 --> 02:54:59,521

just like you try to you try to mess it

3871

02:55:04,160 --> 02:55:01,830

up and you can't you can't you cannot

3872

02:55:07,040 --> 02:55:04,170

you cannot find because it's actually

3873

02:55:10,160 --> 02:55:07,050

real imaging it's incredible to see and

3874

02:55:14,810 --> 02:55:10,170

and if we ever get to the point where

3875

02:55:19,011 --> 02:55:14,820

that that type of Turing test right

3876

02:55:21,290 --> 02:55:19,021

where you can tell right right and you

3877

02:55:25,220 --> 02:55:21,300

cannot you cannot I'm telling you right

3878

02:55:28,551 --> 02:55:25,230

now and are those VR glasses or AR

3879

02:55:32,530 --> 02:55:28,561

glasses yeah both okay it boasts both

3880

02:55:35,600 --> 02:55:32,540

and and I I will introduce you to him

3881

02:55:38,091 --> 02:55:35,610

okay he's really really evolving rapidly

3882

02:55:40,430 --> 02:55:38,101

and these are all steps along the way

3883

02:55:41,960 --> 02:55:40,440

where imagine if you could do that you

3884

02:55:44,330 --> 02:55:41,970

could do that without the glasses and

3885

02:55:46,040 --> 02:55:44,340

beam it directly into our minds and now

3886

02:55:48,350 --> 02:55:46,050

we're in the matrix now we have the

3887

02:55:50,511 --> 02:55:48,360

technology there's a simulation right

3888

02:55:52,850 --> 02:55:50,521

and it's right there because if you have

3889

02:55:54,230 --> 02:55:52,860

it if you have it like he does right

3890

02:55:58,220 --> 02:55:54,240

it's there it's on a hard drive

3891

02:55:59,870 --> 02:55:58,230

well bridging that interface which is

3892

02:56:02,060 --> 02:55:59,880

exactly what DARPA is doing right now

3893

02:56:05,511 --> 02:56:02,070

right building the interface between

3894

02:56:07,091 --> 02:56:05,521

computers and our heads and I've been

3895

02:56:11,750 --> 02:56:07,101

told that they've already you know

3896

02:56:14,270 --> 02:56:11,760

succeeded so there you go that's it's a

3897

02:56:16,490 --> 02:56:14,280

pretty Sandia that that's their focus

3898

02:56:20,450 --> 02:56:16,500

you know that's their focus right now is

3899

02:56:22,520 --> 02:56:20,460

how to get the brain computer interface

3900

02:56:25,761 --> 02:56:22,530

in the machine language to communicate

3901  
02:56:27,440 --> 02:56:25,771  
between the two done that's that's the

3902  
02:56:28,580 --> 02:56:27,450  
next big step and I think that they've

3903  
02:56:30,440 --> 02:56:28,590  
already done it either

3904  
02:56:33,410 --> 02:56:30,450  
you have 100 percent they've already

3905  
02:56:35,120 --> 02:56:33,420  
done it well that's a big step because

3906  
02:56:37,341 --> 02:56:35,130  
then you're you're really starting to

3907  
02:56:40,790 --> 02:56:37,351  
bridge the electrical with the

3908  
02:56:42,770 --> 02:56:40,800  
biological and the chemical and you know

3909  
02:56:45,950 --> 02:56:42,780  
once that's done then you're at that

3910  
02:56:48,980 --> 02:56:45,960  
point where you can have specific images

3911  
02:56:50,570 --> 02:56:48,990  
beamed in from head to people which may

3912  
02:56:52,341 --> 02:56:50,580  
be what's happening to us right now but

3913  
02:56:54,830 --> 02:56:52,351

we're then as a civilization we're

3914

02:56:56,780 --> 02:56:54,840

getting closer to that simulation point

3915

02:56:58,670 --> 02:56:56,790

that we talked about well and then it's

3916

02:57:05,750 --> 02:56:58,680

also the opposite where you get your

3917

02:57:07,520 --> 02:57:05,760

brain outputted right people think that

3918

02:57:10,370 --> 02:57:07,530

you can just take the brain and output

3919

02:57:12,560 --> 02:57:10,380

everything there and that becomes a

3920

02:57:16,460 --> 02:57:12,570

downloadable consciousness you have the

3921

02:57:18,381 --> 02:57:16,470

dream right yes yes yes and so it's a

3922

02:57:20,270 --> 02:57:18,391

matter of so some researchers are saying

3923

02:57:23,000 --> 02:57:20,280

okay if we could just map not just all

3924

02:57:25,310 --> 02:57:23,010

the neurons in your brain but exactly

3925

02:57:27,830 --> 02:57:25,320

you know how much they're firing and

3926

02:57:29,780 --> 02:57:27,840

when and right now that's too big a data

3927

02:57:31,580 --> 02:57:29,790

set for a lot of our computers in our

3928

02:57:34,670 --> 02:57:31,590

big data right now yeah we're talking

3929

02:57:35,960 --> 02:57:34,680

trillions of neurons fire firing and

3930

02:57:38,390 --> 02:57:35,970

you'd have to store that over a long

3931

02:57:40,011 --> 02:57:38,400

period of time again that would that

3932

02:57:41,780 --> 02:57:40,021

would say that consciousness is

3933

02:57:43,820 --> 02:57:41,790

something you can download digitally and

3934

02:57:47,210 --> 02:57:43,830

save and a lot of people are betting on

3935

02:57:50,360 --> 02:57:47,220

that I tend to take you know a slightly

3936

02:57:52,940 --> 02:57:50,370

more spiritual point of view where

3937

02:57:55,011 --> 02:57:52,950

consciousness may not just be the

3938

02:57:57,230 --> 02:57:55,021

neurons but might be something else that

3939

02:57:58,670 --> 02:57:57,240

we can't see in the rendered world which

3940

02:58:01,160 --> 02:57:58,680

is more like the Eastern mystical view

3941

02:58:03,710 --> 02:58:01,170

but it is moving in that direction

3942

02:58:05,570 --> 02:58:03,720

Riz I've got to run credits and get out

3943

02:58:08,120 --> 02:58:05,580

of here so really quick thank you

3944

02:58:12,620 --> 02:58:08,130

another amazing conversation where can

3945

02:58:16,340 --> 02:58:12,630

everybody follow you and reach out so my

3946

02:58:18,350 --> 02:58:16,350

website is Zen entrepreneur calm and you

3947

02:58:21,770 --> 02:58:18,360

can reach out to me from from the

3948

02:58:24,950 --> 02:58:21,780

website you can also go to twitter at

3949

02:58:27,290 --> 02:58:24,960

wrist inferred as well and reach me

3950

02:58:29,810 --> 02:58:27,300

there and then there's a link from my

3951

02:58:31,400 --> 02:58:29,820

website and I think from yours - hacker

3952

02:58:33,469 --> 02:58:31,410

noon which is where I write a lot of

3953

02:58:36,560 --> 02:58:33,479

these types of articles and you can also

3954

02:58:39,830 --> 02:58:36,570

find R is at on stellar he's he's

3955

02:58:41,900 --> 02:58:39,840

actually got a profile and is moving

3956

02:58:44,450 --> 02:58:41,910

forward there too as well we'll talk

3957

02:58:47,240 --> 02:58:44,460

about on stellar in the future of the

3958

02:58:49,850 --> 02:58:47,250

Internet 3.0 on another show thank you

3959

02:58:52,160 --> 02:58:49,860

so much for is get some sleep all right

3960

02:58:54,650 --> 02:58:52,170

thanks for having me on again R is Burke

3961

02:58:57,740 --> 02:58:54,660

and it's very simple Zen interpreter

3962

02:58:59,840 --> 02:58:57,750

calm the links are over at Jimmy Church

3963

02:59:02,210 --> 02:58:59,850

radio calm thank you so much for doing

3964

02:59:05,090 --> 02:59:02,220

this overtime with us I know you're on

3965

02:59:07,880 --> 02:59:05,100

the East Coast doing your thing thank

3966

02:59:09,770 --> 02:59:07,890

you so much rizz for amazing

3967

02:59:11,960 --> 02:59:09,780

conversation fade to black so executive

3968

02:59:14,030 --> 02:59:11,970

producers really come around shows

3969

02:59:16,310 --> 02:59:14,040

produced by him J Palmer Nate Dennis and

3970

02:59:18,980 --> 02:59:16,320

Bob announcers are Steve Harlow Jeeva

3971

02:59:22,640 --> 02:59:18,990

Toa Marc D Cove our webmaster is Drew

3972

02:59:26,719 --> 02:59:22,650

the geek music doug aldrich intro space

3973

02:59:28,250 --> 02:59:26,729

boy space boy music calm theta black is

3974

02:59:31,910 --> 02:59:28,260

produced by kjsurya the GameChanger

3975

02:59:34,929 --> 02:59:31,920

network and syndication is kgr a the

3976

02:59:37,070 --> 02:59:34,939

planet fade to black is copy written

3977

02:59:39,610 --> 02:59:37,080

2018 by fade to black in the game

3978

02:59:41,960 --> 02:59:39,620

changer network it cannot be rebroadcast

3979

02:59:43,969 --> 02:59:41,970

downloaded copied or used anywhere in

3980

02:59:45,560 --> 02:59:43,979

the known universe without written

3981

02:59:48,050 --> 02:59:45,570

permission from fade to black or the

3982

02:59:50,780 --> 02:59:48,060

game changer network I'm you know Jimmy

3983

02:59:52,700 --> 02:59:50,790

Church thank you to R is birth tomorrow

3984

02:59:55,130 --> 02:59:52,710

night right here

3985

02:59:57,980 --> 02:59:55,140

night with Jon Rappoport and is no more

3986

03:00:01,219 --> 02:59:57,990

fake newsroom live follow me on Twitter

3987

03:00:03,880 --> 03:00:01,229

IJ Church radio you can follow R is at R

3988

03:00:05,960 --> 03:00:03,890

is Stanford until tomorrow night

3989

03:00:17,980 --> 03:00:05,970

everybody be safe