

1
00:00:05,929 --> 00:00:13,699
welcome to the skeptic zone the podcast

2
00:00:09,089 --> 00:00:13,699
from Australia for science and reason

3
00:00:22,379 --> 00:00:28,839
hello and welcome to the skeptics out

4
00:00:25,269 --> 00:00:30,518
before the second of february2014 my

5
00:00:28,839 --> 00:00:32,439
friends i'll keep this introduction

6
00:00:30,518 --> 00:00:34,780
brief because i'm just getting over a

7
00:00:32,439 --> 00:00:38,039
chest infection as you can hear I'm not

8
00:00:34,780 --> 00:00:40,149
firing on all cylinders today

9
00:00:38,039 --> 00:00:42,969
nevertheless I'm excited to bring you

10
00:00:40,149 --> 00:00:44,619
this episode of the show I'm going to be

11
00:00:42,969 --> 00:00:49,659
interviewing a dear old friend of mine

12
00:00:44,619 --> 00:00:51,128
the jelly bean lady Loretta Marin she's

13
00:00:49,659 --> 00:00:53,198
known as the jelly bean lady because

14
00:00:51,128 --> 00:00:55,750
well you'll hear why coming up in the

15
00:00:53,198 --> 00:00:58,149
interview but wow what wonderful news

16
00:00:55,750 --> 00:01:00,759
for science and reason in Australia

17
00:00:58,149 --> 00:01:03,268
Loretta Marin who's been a long time

18
00:01:00,759 --> 00:01:07,450
campaigner against health fraud and

19
00:01:03,268 --> 00:01:09,939
quackery was on Australia Day the 26th

20
00:01:07,450 --> 00:01:12,189
of January awarded one of our nation's

21
00:01:09,939 --> 00:01:15,719
highest honors the order of australia

22
00:01:12,189 --> 00:01:18,849
for her work in uncovering quackery

23
00:01:15,719 --> 00:01:22,299
busting the quacks and so on wonderful

24
00:01:18,849 --> 00:01:24,339
news interview with lyrata marin oam as

25
00:01:22,299 --> 00:01:26,920
she's now known coming up at the top of

26
00:01:24,340 --> 00:01:28,569
the show following that as ever it's a

27
00:01:26,920 --> 00:01:33,219
week in science from the Royal

28
00:01:28,569 --> 00:01:39,009
Institution of Australia w WR I a u.s.

29

00:01:33,219 --> 00:01:40,509
org a you one day one day I'll get down

30
00:01:39,009 --> 00:01:42,039
there Paul Willis one day i'll come down

31
00:01:40,509 --> 00:01:43,840
to visit you guys at the Royal

32
00:01:42,039 --> 00:01:46,750
Institution I Australia looking forward

33
00:01:43,840 --> 00:01:49,659
to that and to round off the show lots

34
00:01:46,750 --> 00:01:51,519
more interviews from Maynard Maynard

35
00:01:49,659 --> 00:01:54,670
spooky action at the National Convention

36
00:01:51,519 --> 00:01:58,000
held last year in Canberra in fact this

37
00:01:54,670 --> 00:02:00,879
is the rapper the last series of

38
00:01:58,000 --> 00:02:03,519
interviews from Maynard from the

39
00:02:00,879 --> 00:02:08,009
convention main are jets to a PhD in

40
00:02:03,519 --> 00:02:10,959
earth sciences some more agent Smith's

41
00:02:08,008 --> 00:02:12,899
mysterious Mike McCrae talking about

42
00:02:10,959 --> 00:02:15,400
science and alternative medicine and

43
00:02:12,900 --> 00:02:16,750

then the sort of a grab bag of people as

44

00:02:15,400 --> 00:02:20,110

they leave the convention and their

45

00:02:16,750 --> 00:02:22,060

thoughts on the whole weekend and it's I

46

00:02:20,110 --> 00:02:23,980

guess it's my last opportunity to really

47

00:02:22,060 --> 00:02:26,890

thank may nod for the wonderful work

48

00:02:23,979 --> 00:02:29,019

tireless work he did for all of us at

49

00:02:26,889 --> 00:02:30,399

the National Convention with his reports

50

00:02:29,020 --> 00:02:33,770

going on now for my

51

00:02:30,400 --> 00:02:36,110

fantastic work Maynard and thank you to

52

00:02:33,770 --> 00:02:38,390

all those people who helped may not make

53

00:02:36,110 --> 00:02:40,940

the convention well while I go

54

00:02:38,389 --> 00:02:44,299

downstairs and look for some soothing

55

00:02:40,939 --> 00:02:48,579

ginger tea for my poor old vocal cords

56

00:02:44,300 --> 00:02:48,580

I'll let you enjoy the skeptics on

57

00:02:51,360 --> 00:02:53,420

you

58
00:03:07,389 --> 00:03:11,599
well folks I'm a little bit under the

59
00:03:09,829 --> 00:03:14,150
weather as you can hear just getting

60
00:03:11,598 --> 00:03:16,250
over some sort of little bug or virus or

61
00:03:14,150 --> 00:03:18,079
I don't know what I've got I could try

62
00:03:16,250 --> 00:03:19,759
and many things i could try lots of bed

63
00:03:18,079 --> 00:03:22,340
rest and water and just taking it easy

64
00:03:19,759 --> 00:03:25,248
or i could try oh well I don't know say

65
00:03:22,340 --> 00:03:29,030
maybe some magnetic therapy to help me

66
00:03:25,248 --> 00:03:30,949
beat my ills but you know what I know a

67
00:03:29,030 --> 00:03:32,989
certain lady who would probably advised

68
00:03:30,949 --> 00:03:34,518
me not to do it and I'm very pleased and

69
00:03:32,989 --> 00:03:37,158
excited to have on the line all the way

70
00:03:34,519 --> 00:03:40,489
from sunny Queensland Loretta Marin

71
00:03:37,158 --> 00:03:42,679
hello hello how are you oh yeah good

72
00:03:40,489 --> 00:03:46,370
idea not too good but you know what I'm

73
00:03:42,680 --> 00:03:49,939
so pleased to talk with you because I as

74
00:03:46,370 --> 00:03:51,919
the world knows now as of a Australia

75
00:03:49,938 --> 00:03:54,259
date you've been awarded one of our

76
00:03:51,919 --> 00:03:58,010
country's highest awards which is the

77
00:03:54,259 --> 00:04:00,078
order of australia congratulations thank

78
00:03:58,009 --> 00:04:02,000
you I guess you're just one of the

79
00:04:00,079 --> 00:04:05,120
people congratulating me I'm just so

80
00:04:02,000 --> 00:04:07,459
proud to have received this award but

81
00:04:05,120 --> 00:04:09,979
what I'm getting is congratulations from

82
00:04:07,459 --> 00:04:11,780
like Nobel laureate in a professor barry

83
00:04:09,979 --> 00:04:14,389
marshall you know the man who worked out

84
00:04:11,780 --> 00:04:16,279
what cause ulcers but the CEO of the

85
00:04:14,389 --> 00:04:18,319
cancer council that's the 50 and over

86

00:04:16,279 --> 00:04:20,629
I've got the doctors who treated my

87
00:04:18,319 --> 00:04:22,598
cancer and got family friends academic

88
00:04:20,629 --> 00:04:24,728
scientists all over the world and

89
00:04:22,598 --> 00:04:26,509
Australia as well lots of them

90
00:04:24,728 --> 00:04:29,870
congratulating me I'm getting a lot of

91
00:04:26,509 --> 00:04:32,270
emails it's just um it's wonderful yes

92
00:04:29,870 --> 00:04:35,090
well I hope it was a wonderful surprise

93
00:04:32,269 --> 00:04:36,918
when you found out well when I first got

94
00:04:35,089 --> 00:04:39,138
the letter I read the first two lines

95
00:04:36,918 --> 00:04:41,240
and I swear the rest got jumbled I just

96
00:04:39,139 --> 00:04:43,610
couldn't read on and I had to hand it

97
00:04:41,240 --> 00:04:45,319
over to my husband say what does it say

98
00:04:43,610 --> 00:04:47,270
said you've got an order of australia

99
00:04:45,319 --> 00:04:49,519
medals and I said he you sure cuz I

100
00:04:47,269 --> 00:04:51,859

can't read it the next dance at their

101

00:04:49,519 --> 00:04:54,288

one word at a time and I thought where

102

00:04:51,860 --> 00:04:57,199

there's a good chance I've got that and

103

00:04:54,288 --> 00:04:58,399

and then you have to keep quiet no sep

104

00:04:57,199 --> 00:05:00,288

tember so I've had to keep my lips

105

00:04:58,399 --> 00:05:04,098

buttoned Simpsons a lot more to the

106

00:05:00,288 --> 00:05:06,139

process in that but in effect that I

107

00:05:04,098 --> 00:05:07,490

knew then so I thought well I can't

108

00:05:06,139 --> 00:05:10,610

celebrate

109

00:05:07,490 --> 00:05:12,050

anyone until Australia Day but i can

110

00:05:10,610 --> 00:05:14,960

guarantee there's been a few cooks

111

00:05:12,050 --> 00:05:18,228

champagne corks flying and the party

112

00:05:14,959 --> 00:05:20,209

isn't over yet you you are absolutely

113

00:05:18,228 --> 00:05:22,068

right in fact the skeptics here in

114

00:05:20,209 --> 00:05:24,049

Sydney will certainly be having a glass

115
00:05:22,069 --> 00:05:26,330
of champagne in your honor because we

116
00:05:24,050 --> 00:05:28,460
really think of you as one of our own

117
00:05:26,329 --> 00:05:30,409
you've been skeptic of the year on your

118
00:05:28,459 --> 00:05:32,538
own merits twice and as part of the

119
00:05:30,410 --> 00:05:34,910
Friends of science and medicine yet

120
00:05:32,538 --> 00:05:37,610
again which is a feat nobody else has

121
00:05:34,910 --> 00:05:38,960
even come close to matching but it all

122
00:05:37,610 --> 00:05:41,598
really started with you in your

123
00:05:38,959 --> 00:05:43,158
association with the skeptics over ten

124
00:05:41,598 --> 00:05:46,098
years ago when you are looking into

125
00:05:43,158 --> 00:05:49,009
magnetic therapy well that's right i had

126
00:05:46,098 --> 00:05:51,800
seen it advertised on the television so

127
00:05:49,009 --> 00:05:54,110
many times and a good friend of mine had

128
00:05:51,800 --> 00:05:55,400
bought one and he was an electrician and

129
00:05:54,110 --> 00:05:57,280
i had a bit of a go at him and I thought

130
00:05:55,399 --> 00:05:59,689
I'm no better than the alternative

131
00:05:57,279 --> 00:06:02,059
therapists unless I proved to him that

132
00:05:59,689 --> 00:06:04,399
they don't work so that was a challenge

133
00:06:02,060 --> 00:06:05,689
I thought how can I do that so you

134
00:06:04,399 --> 00:06:09,288
looked around Australian who could I

135
00:06:05,689 --> 00:06:12,079
talk to you and the thought will contact

136
00:06:09,288 --> 00:06:14,060
the skeptics whoever they are and I got

137
00:06:12,079 --> 00:06:15,709
hold of President the past president

138
00:06:14,060 --> 00:06:18,680
barry williams and he couldn't have been

139
00:06:15,709 --> 00:06:20,598
more helpful now what that did for me is

140
00:06:18,680 --> 00:06:23,120
make me realize that if i needed any

141
00:06:20,598 --> 00:06:25,759
help and advice the phone was there i

142
00:06:23,120 --> 00:06:27,918
could just pick it up and ring and and

143

00:06:25,759 --> 00:06:31,069
to be honest and you guys haven't got

144
00:06:27,918 --> 00:06:33,500
rid of message no no no we're very

145
00:06:31,069 --> 00:06:35,060
pleased that you're still there well yes

146
00:06:33,500 --> 00:06:36,589
and you've spoken at many Australian

147
00:06:35,060 --> 00:06:38,300
skeptics convention and you're a great

148
00:06:36,589 --> 00:06:40,068
speaker and you've even spoken in New

149
00:06:38,300 --> 00:06:42,288
Zealand I see oh yeah they're a

150
00:06:40,069 --> 00:06:44,270
wonderful group over there and they have

151
00:06:42,288 --> 00:06:45,978
really made me feel welcome as well it's

152
00:06:44,269 --> 00:06:48,198
the second time I've spoken there and

153
00:06:45,978 --> 00:06:50,718
they're really not that far away when

154
00:06:48,199 --> 00:06:52,280
you think about it and so that it's a

155
00:06:50,718 --> 00:06:53,870
good opportunity to get the message

156
00:06:52,279 --> 00:06:55,728
across and show them what we're doing in

157
00:06:53,870 --> 00:06:58,280

there in our country because they've got

158

00:06:55,728 --> 00:07:00,050

serious problems there as well and I we

159

00:06:58,279 --> 00:07:02,538

do need the skeptics around the world do

160

00:07:00,050 --> 00:07:04,639

need to you know look after each other

161

00:07:02,538 --> 00:07:08,839

and share what we know what we can do

162

00:07:04,639 --> 00:07:11,538

now you're famous of course maybe not so

163

00:07:08,839 --> 00:07:13,279

much now but in the past you you had the

164

00:07:11,538 --> 00:07:15,528

moniker of the jellybean lady and I

165

00:07:13,279 --> 00:07:17,239

there's a wonderful picture of you lying

166

00:07:15,528 --> 00:07:19,310

down on a bed of jelly beans with a

167

00:07:17,240 --> 00:07:19,620

jelly bean wrapped around your head what

168

00:07:19,310 --> 00:07:22,259

was

169

00:07:19,620 --> 00:07:24,060

whole idea of that well i was asked

170

00:07:22,259 --> 00:07:26,759

because of the magnetic therapy right

171

00:07:24,060 --> 00:07:28,199

that had been my my my one thing that

172
00:07:26,759 --> 00:07:31,228
was really annoying me and that was

173
00:07:28,199 --> 00:07:32,910
pre-cancer say i put things down when i

174
00:07:31,228 --> 00:07:35,939
got the cancer because you know that

175
00:07:32,910 --> 00:07:37,800
takes over your life and but then i came

176
00:07:35,939 --> 00:07:39,449
back and i realized after I've been

177
00:07:37,800 --> 00:07:41,490
diagnosed that cancer patients were

178
00:07:39,449 --> 00:07:43,860
being targeted and I thought somebody

179
00:07:41,490 --> 00:07:46,410
should do something about this and I

180
00:07:43,860 --> 00:07:49,490
thought well it may as well be me and so

181
00:07:46,410 --> 00:07:51,120
I went to write a little brochure on

182
00:07:49,490 --> 00:07:53,370
complementary and alternative medicine

183
00:07:51,120 --> 00:07:57,000
and I thought and other things on how to

184
00:07:53,370 --> 00:07:58,139
get good advice on everything and the

185
00:07:57,000 --> 00:07:59,728
complementary alternative medicine

186
00:07:58,139 --> 00:08:02,220
section I thought I know nothing about

187
00:07:59,728 --> 00:08:05,779
this well I did two things one is i

188
00:08:02,220 --> 00:08:09,030
bought the skeptics DVD of all your

189
00:08:05,779 --> 00:08:10,589
articles for the last 20 years i printed

190
00:08:09,029 --> 00:08:12,869
out everything on complementary

191
00:08:10,589 --> 00:08:15,299
alternative medicine most of it was

192
00:08:12,870 --> 00:08:19,050
written by dr. richard gordon right yes

193
00:08:15,300 --> 00:08:21,150
yes and a couple of days later I pretty

194
00:08:19,050 --> 00:08:22,379
well had a good handle on it because one

195
00:08:21,149 --> 00:08:24,839
thing about alternative method it

196
00:08:22,379 --> 00:08:27,089
doesn't change they have new therapies

197
00:08:24,839 --> 00:08:29,098
created every couple of weeks but the

198
00:08:27,089 --> 00:08:31,228
basics are the same so first of all I

199
00:08:29,098 --> 00:08:33,718
got my education there and then I went

200

00:08:31,228 --> 00:08:36,179
to the adverse medicines events hotline

201
00:08:33,719 --> 00:08:39,060
and I rang them up and I said I need

202
00:08:36,179 --> 00:08:41,218
help with understanding the risks and

203
00:08:39,059 --> 00:08:42,569
benefits of complementing all medicines

204
00:08:41,219 --> 00:08:44,970
in particular because people are eating

205
00:08:42,570 --> 00:08:48,690
them and a woman by the name of

206
00:08:44,970 --> 00:08:49,889
Geraldine Moses out to the phone and she

207
00:08:48,690 --> 00:08:52,110
said well what do you know about

208
00:08:49,889 --> 00:08:54,899
complementary medicines and I said

209
00:08:52,110 --> 00:08:57,300
nothing I go over everybody to the

210
00:08:54,899 --> 00:08:59,458
skeptics dictionary and she couldn't

211
00:08:57,299 --> 00:09:01,979
have been more helpful she's just one

212
00:08:59,458 --> 00:09:04,289
but she still is helping and I think

213
00:09:01,980 --> 00:09:07,259
she's spoken at a few conferences so

214
00:09:04,289 --> 00:09:08,849

that's that's where it started with with

215

00:09:07,259 --> 00:09:11,338

that and the skeptics and the people

216

00:09:08,850 --> 00:09:12,959

that have helped me yes our Geraldine

217

00:09:11,339 --> 00:09:15,750

merces a i had the pleasure of meeting

218

00:09:12,958 --> 00:09:20,009

her once or twice I think in Brisbane

219

00:09:15,750 --> 00:09:22,708

around about the year 2001 when or is it

220

00:09:20,009 --> 00:09:24,958

2002 when the great skeptic CD was

221

00:09:22,708 --> 00:09:28,529

launched the CD you're referring to

222

00:09:24,958 --> 00:09:31,708

interesting it's things have progressed

223

00:09:28,529 --> 00:09:32,919

so so much now in computer terms that

224

00:09:31,708 --> 00:09:34,659

that's sort of a little bit

225

00:09:32,919 --> 00:09:36,759

leton all the back issues of the

226

00:09:34,659 --> 00:09:38,528

skeptic magazine are now at the website

227

00:09:36,759 --> 00:09:40,778

which is nice and handy for everybody

228

00:09:38,528 --> 00:09:42,639

but personally I'm so pleased that

229
00:09:40,778 --> 00:09:45,039
you've got good use out of that CD

230
00:09:42,639 --> 00:09:47,110
because many years ago I was the one who

231
00:09:45,039 --> 00:09:50,559
sat down and put that all together so I

232
00:09:47,110 --> 00:09:52,240
get a little a warm glow Loretta knowing

233
00:09:50,559 --> 00:09:54,489
that I've helped you well the one thing

234
00:09:52,240 --> 00:09:56,528
is you actually about the magnetic

235
00:09:54,490 --> 00:09:58,690
business alright with Geraldine asked me

236
00:09:56,528 --> 00:10:00,159
well what was my you know area of

237
00:09:58,690 --> 00:10:02,740
interest to know said magnetic therapy

238
00:10:00,159 --> 00:10:03,879
so she then Dodd me into channel mind

239
00:10:02,740 --> 00:10:05,980
she said would you like to go on

240
00:10:03,879 --> 00:10:08,078
television channel nine to talk about

241
00:10:05,980 --> 00:10:10,060
magnetic therapy and I of course I said

242
00:10:08,078 --> 00:10:13,539
yes and then of course I hung up and I

243
00:10:10,059 --> 00:10:16,419
thought I don't look like a scientist ok

244
00:10:13,539 --> 00:10:18,129
oh and in line with the skeptics which

245
00:10:16,419 --> 00:10:20,740
is what the skeptics love if they love

246
00:10:18,129 --> 00:10:22,990
to have a good life right yeah what the

247
00:10:20,740 --> 00:10:24,820
mickey out of people so i decided i

248
00:10:22,990 --> 00:10:27,610
copied her notes from the local natural

249
00:10:24,820 --> 00:10:29,680
path which fed you know that the nature

250
00:10:27,610 --> 00:10:31,509
pathogen blah blah no Foreman is it but

251
00:10:29,679 --> 00:10:34,149
I made it the jellybeans lady is in I

252
00:10:31,509 --> 00:10:37,000
did a whole brochure abajo stand on that

253
00:10:34,149 --> 00:10:39,220
put it out front of the house I then put

254
00:10:37,000 --> 00:10:41,589
myself on i bought a jellybean apron

255
00:10:39,220 --> 00:10:44,379
from you know from a child store put the

256
00:10:41,589 --> 00:10:46,779
jelly beans on my head earrings jewelry

257

00:10:44,379 --> 00:10:48,730
set up a whole display of jelly bean

258
00:10:46,778 --> 00:10:50,740
therapy you know acupressure bracelets

259
00:10:48,730 --> 00:10:53,470
which was jelly beans back in a ribbon

260
00:10:50,740 --> 00:10:55,839
and actually printed up actually detox

261
00:10:53,470 --> 00:10:57,550
patches which is goes with the jelly

262
00:10:55,839 --> 00:11:00,730
bean in and then the pain relief jewelry

263
00:10:57,549 --> 00:11:03,189
and then i had even verbal remedy herbal

264
00:11:00,730 --> 00:11:05,709
tea which was jelly bean stuck on a

265
00:11:03,190 --> 00:11:07,990
kebab stick and channel 9 turned up and

266
00:11:05,708 --> 00:11:09,429
they took one look at me and they said

267
00:11:07,990 --> 00:11:11,889
watch his story and i could see they

268
00:11:09,429 --> 00:11:13,929
were looked a bit pale and I had my i

269
00:11:11,889 --> 00:11:16,208
bought a meter that measures magnetism

270
00:11:13,929 --> 00:11:17,859
oh yeah and I had a little magnetic

271
00:11:16,208 --> 00:11:20,289

underlay and a little jelly bean

272

00:11:17,860 --> 00:11:23,110

underlay all covered up in sheepskin my

273

00:11:20,289 --> 00:11:24,789

said is the meter this out works which

274

00:11:23,110 --> 00:11:26,139

one's got the magnets and which ones got

275

00:11:24,789 --> 00:11:28,719

the dilly beans and they said it reads

276

00:11:26,139 --> 00:11:31,659

zero and I said yes I said you just get

277

00:11:28,720 --> 00:11:33,759

a tiny distance you know if listen a

278

00:11:31,659 --> 00:11:37,000

centimeter above a magnet there's no

279

00:11:33,759 --> 00:11:39,669

field so what I say that people is grab

280

00:11:37,000 --> 00:11:41,198

a fridge magnet and try it and of course

281

00:11:39,669 --> 00:11:43,899

you're nothing can see if it works for

282

00:11:41,198 --> 00:11:46,359

you and and they just loved it you know

283

00:11:43,899 --> 00:11:49,570

and that was the start of me

284

00:11:46,360 --> 00:11:52,120

being the jellybean lady and that was

285

00:11:49,570 --> 00:11:55,390

also got me into new idea magazine as

286
00:11:52,120 --> 00:11:57,789
the candy Crusader not me on 24 bc radio

287
00:11:55,389 --> 00:12:00,610
for over a year just people love it when

288
00:11:57,789 --> 00:12:03,189
you prepared to put your head out there

289
00:12:00,610 --> 00:12:05,709
sis might get whacked a few times but

290
00:12:03,190 --> 00:12:09,190
then they remembered yours even on

291
00:12:05,708 --> 00:12:11,799
Ingrid tool show and your health show in

292
00:12:09,190 --> 00:12:13,959
Brisbane and I turned up and I had all

293
00:12:11,799 --> 00:12:16,328
this pom-pom stuck on my shirt I mean my

294
00:12:13,958 --> 00:12:18,278
idea of sewing is with glue so I had

295
00:12:16,328 --> 00:12:20,259
these little brightly things and I and I

296
00:12:18,278 --> 00:12:22,028
had the outfit on and she said you're

297
00:12:20,259 --> 00:12:23,980
great for television and I got a gig on

298
00:12:22,028 --> 00:12:25,509
there as well I thought if I'd look like

299
00:12:23,980 --> 00:12:29,409
a scientist you know would have been

300
00:12:25,509 --> 00:12:31,149
unemployed very quickly it's been a lot

301
00:12:29,409 --> 00:12:32,919
of fun and that's better with the magnet

302
00:12:31,149 --> 00:12:35,620
well it's interesting because you know

303
00:12:32,919 --> 00:12:38,379
when I think back to roughly ten years

304
00:12:35,620 --> 00:12:41,100
ago or around that era I remember seeing

305
00:12:38,379 --> 00:12:43,539
on advertorial televisions and magazines

306
00:12:41,100 --> 00:12:45,790
magnetic underlays and magnetic therapy

307
00:12:43,539 --> 00:12:47,559
and magnetic this and that it was it was

308
00:12:45,789 --> 00:12:49,659
a fan of the time it was very popular

309
00:12:47,559 --> 00:12:52,869
but you don't see it anymore well

310
00:12:49,659 --> 00:12:54,429
scarcely ever so I think that's you

311
00:12:52,870 --> 00:12:56,620
don't see it at all that shouldn't be

312
00:12:54,429 --> 00:12:58,239
there mmm but you will see them you know

313
00:12:56,620 --> 00:12:59,919
spec floor-to-ceiling at your local

314

00:12:58,240 --> 00:13:01,690
pharmacy particularly if they're

315
00:12:59,919 --> 00:13:04,240
anywhere near a retirement village so

316
00:13:01,690 --> 00:13:05,949
the school issue there and because their

317
00:13:04,240 --> 00:13:07,839
labeling is atrocious on and it still

318
00:13:05,948 --> 00:13:10,899
makes the claims on the labeling but

319
00:13:07,839 --> 00:13:12,550
what you and I can do as consumers is

320
00:13:10,899 --> 00:13:14,679
try to get rid of the advertising this

321
00:13:12,549 --> 00:13:16,689
and pretty strong advertising lower

322
00:13:14,679 --> 00:13:18,789
their best well it's not to fit yeah I

323
00:13:16,690 --> 00:13:20,380
hope it will encourage my clio am

324
00:13:18,789 --> 00:13:21,789
there's a lot of people have turned

325
00:13:20,379 --> 00:13:24,578
their backs on evidence-based medicine

326
00:13:21,789 --> 00:13:25,778
but I mean we owe so much to researchers

327
00:13:24,578 --> 00:13:28,838
and doctors I mean there's a dramatic

328
00:13:25,778 --> 00:13:31,269

improvement in survival rates for cancer

329

00:13:28,839 --> 00:13:34,360

I think this month be declared India

330

00:13:31,269 --> 00:13:35,740

polio-free yes new the natural science

331

00:13:34,360 --> 00:13:38,289

and evidence based medicine it's

332

00:13:35,740 --> 00:13:41,259

terrific yeah absolutely no magnetic

333

00:13:38,289 --> 00:13:43,838

therapy or homeopathy or or witchcraft

334

00:13:41,259 --> 00:13:46,750

involved that's all good old good old

335

00:13:43,839 --> 00:13:49,540

science-based medicine at work doing

336

00:13:46,750 --> 00:13:50,589

what it what it does best and it's

337

00:13:49,539 --> 00:13:52,179

interesting you should mention the

338

00:13:50,589 --> 00:13:53,740

pharmacies because Australian skeptics

339

00:13:52,179 --> 00:13:57,250

for a long time they've had a big issue

340

00:13:53,740 --> 00:13:59,370

with pharmacies selling no end of

341

00:13:57,250 --> 00:14:01,679

nonsense and

342

00:13:59,370 --> 00:14:04,500

too fat you can go to my local pharmacy

343
00:14:01,679 --> 00:14:07,559
and you get 15 minutes free iridology oh

344
00:14:04,500 --> 00:14:09,450
lucky you yes that's right you know in

345
00:14:07,559 --> 00:14:11,489
order to diagnose me with health

346
00:14:09,450 --> 00:14:13,620
conditions and miss the obvious ones and

347
00:14:11,490 --> 00:14:14,879
as it just isn't right and that's their

348
00:14:13,620 --> 00:14:17,190
way of getting rounder and they're being

349
00:14:14,879 --> 00:14:18,870
told to clear their shelves the money's

350
00:14:17,190 --> 00:14:21,089
in all the complementary medicines I

351
00:14:18,870 --> 00:14:23,370
mean we care or complementary

352
00:14:21,089 --> 00:14:25,320
alternative medicine if a 4 billion

353
00:14:23,370 --> 00:14:27,509
dollar industry and most of it realizing

354
00:14:25,320 --> 00:14:30,120
the placebo effect and some of its quite

355
00:14:27,509 --> 00:14:32,129
dangerous and it often targets you know

356
00:14:30,120 --> 00:14:35,399
the most vulnerable people that cancer

357
00:14:32,129 --> 00:14:37,980
patients seniors and increasingly babies

358
00:14:35,399 --> 00:14:40,379
and children you know and I hope that my

359
00:14:37,980 --> 00:14:43,019
award will open more doors for me to

360
00:14:40,379 --> 00:14:44,549
challenge the poor regulation and make

361
00:14:43,019 --> 00:14:47,009
you know make me more difficult to

362
00:14:44,549 --> 00:14:50,969
ignore oh I'm sure it absolutely will

363
00:14:47,009 --> 00:14:53,009
now you are in very fine company indeed

364
00:14:50,970 --> 00:14:54,930
with the Friends of science and medicine

365
00:14:53,009 --> 00:14:56,370
can you tell our listeners a little bit

366
00:14:54,929 --> 00:14:58,649
about that and how that's going oh

367
00:14:56,370 --> 00:15:01,289
that's going really well and I do have a

368
00:14:58,649 --> 00:15:04,829
lot to thank the skeptics for as well we

369
00:15:01,289 --> 00:15:06,809
launched in december 2011 so we're just

370
00:15:04,830 --> 00:15:09,360
over two years old we have over a

371

00:15:06,809 --> 00:15:11,369
thousand supporters now including Nobel

372
00:15:09,360 --> 00:15:14,250
Prize winners a couple of Australian of

373
00:15:11,370 --> 00:15:17,820
these I think about three and over 60

374
00:15:14,250 --> 00:15:21,659
recipients of medals like myself all

375
00:15:17,820 --> 00:15:23,430
over 61 now and when we started of

376
00:15:21,659 --> 00:15:26,309
course for it was self funded so it

377
00:15:23,429 --> 00:15:29,129
meant that we all put 125 dollars in to

378
00:15:26,309 --> 00:15:31,799
pay for the postage and post office box

379
00:15:29,129 --> 00:15:34,860
and the skeptics willingly gave us a

380
00:15:31,799 --> 00:15:36,539
grant to get us off the ground we're

381
00:15:34,860 --> 00:15:39,000
trying to promote a message of good

382
00:15:36,539 --> 00:15:40,500
science medicine and that's a very

383
00:15:39,000 --> 00:15:42,809
important message because of the

384
00:15:40,500 --> 00:15:44,639
industry was fighting so the support

385
00:15:42,809 --> 00:15:47,549

would continue to have from the skeptics

386

00:15:44,639 --> 00:15:49,439

is regularly appreciated yes and we

387

00:15:47,549 --> 00:15:51,509

think it's a wonderful thing that you're

388

00:15:49,440 --> 00:15:53,370

doing and indeed one of our own Joe

389

00:15:51,509 --> 00:15:54,600

Benna mu is is certainly involved with

390

00:15:53,370 --> 00:15:56,639

the Friends of science and medicine and

391

00:15:54,600 --> 00:15:58,860

people you miss Johanna we happy family

392

00:15:56,639 --> 00:16:01,799

just a little treasure to use your

393

00:15:58,860 --> 00:16:03,839

treasure a wonderful woman end but

394

00:16:01,799 --> 00:16:05,778

listeners can find out more about the

395

00:16:03,839 --> 00:16:09,510

Friends of science and medicine at

396

00:16:05,778 --> 00:16:11,490

science in medicine or gay you and

397

00:16:09,509 --> 00:16:12,509

Loretta that's certainly becoming under

398

00:16:11,490 --> 00:16:15,269

a lot of tax

399

00:16:12,509 --> 00:16:16,679

attack from certain quarters well it

400
00:16:15,269 --> 00:16:18,899
certainly is and that actually shows

401
00:16:16,679 --> 00:16:20,429
that we're being you know making the

402
00:16:18,899 --> 00:16:24,350
difference and that's what we're trying

403
00:16:20,429 --> 00:16:27,149
to do is challenge this industry and

404
00:16:24,350 --> 00:16:29,100
will they perhaps they're being feeling

405
00:16:27,149 --> 00:16:32,129
a bit threatened but they have made very

406
00:16:29,100 --> 00:16:34,200
well-funded I mean some of them set up

407
00:16:32,129 --> 00:16:36,659
offices in Canberra so they can lobby

408
00:16:34,200 --> 00:16:38,070
the government and that's very difficult

409
00:16:36,659 --> 00:16:39,569
for us to say to the government there's

410
00:16:38,070 --> 00:16:42,120
a whole industry there's a lot of people

411
00:16:39,570 --> 00:16:43,860
employed it's project projected to be

412
00:16:42,120 --> 00:16:46,830
one of the biggest growth employment

413
00:16:43,860 --> 00:16:49,500
industries for this year yeah and say

414
00:16:46,830 --> 00:16:52,080
most of it is just for SIBO all of it

415
00:16:49,500 --> 00:16:54,389
yeah yeah and that's very sad i will

416
00:16:52,080 --> 00:16:57,780
mention that this week is quite special

417
00:16:54,389 --> 00:17:01,529
for me not just for my reward but i

418
00:16:57,779 --> 00:17:04,440
celebrate 10 years exactly to my last

419
00:17:01,529 --> 00:17:06,299
week of treatment for radiotherapy so

420
00:17:04,440 --> 00:17:08,610
it's been quite a roller coaster ride

421
00:17:06,299 --> 00:17:11,490
since then it's been quite a 10 years

422
00:17:08,609 --> 00:17:13,649
yes yeah so just you know second

423
00:17:11,490 --> 00:17:15,750
effective of february was my last

424
00:17:13,650 --> 00:17:18,120
treatment and that's just in a few days

425
00:17:15,750 --> 00:17:21,420
from there so I've had a most amazing

426
00:17:18,119 --> 00:17:23,729
decade that's the short and the skeptics

427
00:17:21,420 --> 00:17:25,410
have been right in there because I hope

428

00:17:23,730 --> 00:17:26,910
people listen to this we'll have a look

429
00:17:25,410 --> 00:17:29,040
at the Friends of science and medicine

430
00:17:26,910 --> 00:17:31,320
website have a look at our aims and

431
00:17:29,039 --> 00:17:33,210
commitments and we'd love you to join us

432
00:17:31,319 --> 00:17:36,779
all you have to do is say that you agree

433
00:17:33,210 --> 00:17:39,509
with them and welcome on board isn't it

434
00:17:36,779 --> 00:17:41,609
interesting that there you are one day

435
00:17:39,509 --> 00:17:42,900
getting this diagnosis of cancer and

436
00:17:41,609 --> 00:17:45,419
everybody knows it's a life-changing

437
00:17:42,900 --> 00:17:47,490
thing for for anybody who gets this

438
00:17:45,420 --> 00:17:49,470
diagnosis but how could you possibly

439
00:17:47,490 --> 00:17:52,980
imagine it would change your life in

440
00:17:49,470 --> 00:17:54,390
such a an unexpected way and the top it

441
00:17:52,980 --> 00:17:56,160
all off you receive an order of

442
00:17:54,390 --> 00:17:58,170

australia that's quite a story attract

443

00:17:56,160 --> 00:18:00,120

if someone said to me already you're the

444

00:17:58,170 --> 00:18:03,060

only one that can make lemonade out of a

445

00:18:00,119 --> 00:18:05,009

lemon that's a good way of putting it

446

00:18:03,059 --> 00:18:07,319

but it has been good looking back at the

447

00:18:05,009 --> 00:18:08,910

last decade of all the people that have

448

00:18:07,319 --> 00:18:11,069

helped me along the way just little

449

00:18:08,910 --> 00:18:12,390

things that they've done on big things

450

00:18:11,069 --> 00:18:14,730

that they've done as well I mean my

451

00:18:12,390 --> 00:18:16,680

neighbor that silkscreen my t-shirts

452

00:18:14,730 --> 00:18:18,180

with the jellybean lady on for the

453

00:18:16,680 --> 00:18:20,370

conference the first conference I went

454

00:18:18,180 --> 00:18:22,200

to with the skeptics you know and and

455

00:18:20,369 --> 00:18:23,909

the advice I've been given the support

456

00:18:22,200 --> 00:18:26,400

I've been given it's just been

457
00:18:23,910 --> 00:18:28,680
tremendous and the opportunity to skip

458
00:18:26,400 --> 00:18:31,560
given me to go and talk about my work

459
00:18:28,680 --> 00:18:34,070
and even more recently about the Friends

460
00:18:31,559 --> 00:18:36,389
of science and medicine it all matters

461
00:18:34,069 --> 00:18:38,339
absolutely absolutely I couldn't agree

462
00:18:36,390 --> 00:18:42,420
with you more Loretta it matters it's

463
00:18:38,339 --> 00:18:44,279
it's it's a never-ending battle as we

464
00:18:42,420 --> 00:18:46,080
know it's a never-ending battle but I

465
00:18:44,279 --> 00:18:50,089
think you should rightly now consider

466
00:18:46,079 --> 00:18:52,679
yourself one of the generals Thank You

467
00:18:50,089 --> 00:18:56,490
Loretta melon always we'd love to know

468
00:18:52,680 --> 00:19:21,060
you as the jelly bean lady Oh am a

469
00:18:56,490 --> 00:19:22,799
delight to talk with you okay take need

470
00:19:21,059 --> 00:19:24,179
some skeptic II goodness that you can

471
00:19:22,799 --> 00:19:26,309
handle to someone who doesn't listen to

472
00:19:24,180 --> 00:19:29,009
podcasts or maybe you just need a good

473
00:19:26,309 --> 00:19:31,049
book of short skeptical snippets to put

474
00:19:29,009 --> 00:19:34,230
in your guest bathroom at home or on the

475
00:19:31,049 --> 00:19:36,059
lobby table at work it's true we live in

476
00:19:34,230 --> 00:19:38,460
a modern Dark Age faith and

477
00:19:36,059 --> 00:19:40,710
pseudoscience is rampant and belief in

478
00:19:38,460 --> 00:19:43,289
the supernatural permeates society at

479
00:19:40,710 --> 00:19:45,870
every level critical thinking is key to

480
00:19:43,289 --> 00:19:48,299
understanding what is truly useful and

481
00:19:45,869 --> 00:19:50,969
what nearly distracts from progress and

482
00:19:48,299 --> 00:19:52,859
development this book gives you the

483
00:19:50,970 --> 00:19:56,130
tools to sort the solid from the silly

484
00:19:52,859 --> 00:19:57,899
and answer such questions as do military

485

00:19:56,130 --> 00:20:02,430
dolphins actually attack

486
00:19:57,900 --> 00:20:04,500
kill divers who was Jack the Ripper can

487
00:20:02,430 --> 00:20:07,769
zombie powder actually turn you into a

488
00:20:04,500 --> 00:20:11,670
mindless slave was an amputee

489
00:20:07,769 --> 00:20:14,660
miraculously healed in the 1600s what is

490
00:20:11,670 --> 00:20:17,759
truly known about Amelia Earhart's fate

491
00:20:14,660 --> 00:20:21,050
does scientific evidence prove the

492
00:20:17,759 --> 00:20:24,359
existence of the Yeti skepp tied five

493
00:20:21,049 --> 00:20:27,329
massacres monsters and miracles by Brian

494
00:20:24,359 --> 00:20:32,579
Dunning get yours today from amazon or

495
00:20:27,329 --> 00:20:36,409
sceptile calm / books Sceptile massacres

496
00:20:32,579 --> 00:20:36,409
monsters and miracles

497
00:20:40,558 --> 00:20:45,788
welcome to Weekend science from RI oz

498
00:20:43,480 --> 00:20:48,038
bringing you the science you need to

499
00:20:45,788 --> 00:20:49,960

know you may have heard about 3d

500

00:20:48,038 --> 00:20:52,028

printing the technology that allows you

501

00:20:49,960 --> 00:20:54,460

to make almost anything so long as you

502

00:20:52,028 --> 00:20:56,319

can designer on a computer but get ready

503

00:20:54,460 --> 00:21:02,319

today we are talking about the next big

504

00:20:56,319 --> 00:21:05,048

advance 4d printing 3d printing is

505

00:21:02,319 --> 00:21:07,210

pretty amazing as we said you can print

506

00:21:05,048 --> 00:21:09,720

out almost any shape you can think of as

507

00:21:07,210 --> 00:21:12,639

long as you can designer on a computer a

508

00:21:09,720 --> 00:21:14,889

printer prints our other metal plastic

509

00:21:12,638 --> 00:21:17,319

or many other substances into

510

00:21:14,888 --> 00:21:20,558

three-dimensional shapes by laying layer

511

00:21:17,319 --> 00:21:22,658

upon layer however one limitation is

512

00:21:20,558 --> 00:21:24,849

that you still need to assemble 3d

513

00:21:22,659 --> 00:21:27,278

printed parts into a more complex

514
00:21:24,849 --> 00:21:29,798
structure what if we said the next big

515
00:21:27,278 --> 00:21:32,079
development called 4d printing was to

516
00:21:29,798 --> 00:21:33,849
create shapes that can actually assemble

517
00:21:32,079 --> 00:21:35,829
themselves into their final three

518
00:21:33,849 --> 00:21:37,839
dimensional structure that's what

519
00:21:35,829 --> 00:21:40,148
researchers are working on now to create

520
00:21:37,839 --> 00:21:42,668
principle materials and structures which

521
00:21:40,148 --> 00:21:44,888
when activated fold themselves into a

522
00:21:42,669 --> 00:21:48,429
predetermined shape this activation

523
00:21:44,888 --> 00:21:52,538
could be water electricity heat really

524
00:21:48,429 --> 00:21:55,000
anything these structures are made by

525
00:21:52,538 --> 00:21:56,648
combining plastic and smart memory

526
00:21:55,000 --> 00:21:58,679
material which can morph into different

527
00:21:56,648 --> 00:22:00,729
shapes one of the most obvious

528
00:21:58,679 --> 00:22:03,100
applications of this is to create

529
00:22:00,730 --> 00:22:05,048
structures which are flat or small so

530
00:22:03,099 --> 00:22:07,000
they can be shipped easily and then be

531
00:22:05,048 --> 00:22:09,849
activated into their functional shape

532
00:22:07,000 --> 00:22:12,099
once on location could this be the end

533
00:22:09,849 --> 00:22:15,250
of trying to assemble fiddly flat-pack

534
00:22:12,099 --> 00:22:17,048
furniture man I hope so objects could

535
00:22:15,250 --> 00:22:18,339
also be made which have a different

536
00:22:17,048 --> 00:22:20,648
structure in different conditions

537
00:22:18,339 --> 00:22:23,138
meaning one object could have several

538
00:22:20,648 --> 00:22:25,359
different uses structures could also

539
00:22:23,138 --> 00:22:27,428
react to their surroundings to change

540
00:22:25,359 --> 00:22:30,788
shape and optimize their effectiveness

541
00:22:27,429 --> 00:22:34,600
how cool is that and now here's four

542

00:22:30,788 --> 00:22:37,339
fast facts about 40 printing

543
00:22:34,599 --> 00:22:40,279
4d printing was revealed to the world in

544
00:22:37,339 --> 00:22:43,009
a TED talk by MIT researchers Skylar

545
00:22:40,279 --> 00:22:44,899
Tibbits we recommend checking it out the

546
00:22:43,009 --> 00:22:46,849
shapes that the structures convert into

547
00:22:44,900 --> 00:22:49,759
are determined during the design stage

548
00:22:46,849 --> 00:22:52,159
so every step of the conversion from one

549
00:22:49,759 --> 00:22:53,900
shape to the other is controllable one

550
00:22:52,160 --> 00:22:56,060
of the other interesting applications

551
00:22:53,900 --> 00:22:58,430
for this technology is medicine where

552
00:22:56,059 --> 00:23:00,440
molecules can react and transform into

553
00:22:58,430 --> 00:23:02,870
functional types when they reach a

554
00:23:00,440 --> 00:23:04,610
particular part of the body and one of

555
00:23:02,869 --> 00:23:06,919
the largest self-folding structures

556
00:23:04,609 --> 00:23:09,019

we've seen is this 50-foot long strand

557

00:23:06,920 --> 00:23:11,630

but this technology will be scaled up

558

00:23:09,019 --> 00:23:14,000

even further in the future one to find

559

00:23:11,630 --> 00:23:20,690

out more about 4d printing check out our

560

00:23:14,000 --> 00:23:22,759

website w WR i ASO GA you where we have

561

00:23:20,690 --> 00:23:25,370

some links you can also follow us on

562

00:23:22,759 --> 00:23:27,529

twitter at our oz and like us on

563

00:23:25,369 --> 00:23:30,369

facebook we'll see you right here next

564

00:23:27,529 --> 00:23:30,369

week

565

00:23:35,710 --> 00:23:40,600

hi I'm Finn and I'm Rebecca and where

566

00:23:38,440 --> 00:23:42,340

the skipper cons skipper Collins is an

567

00:23:40,599 --> 00:23:44,019

Irish podcast by the Dublin skeptics

568

00:23:42,339 --> 00:23:45,609

society it takes a conversational

569

00:23:44,019 --> 00:23:46,869

reverent look at science news and

570

00:23:45,609 --> 00:23:50,349

skeptical topics for an Irish

571
00:23:46,869 --> 00:24:02,918
perspective you can find us at WWDC

572
00:23:50,349 --> 00:24:07,019
arrogance calm years may not spooky

573
00:24:02,919 --> 00:24:07,020
action at a distance

574
00:24:07,798 --> 00:24:12,670
hey no no no I want to talk to an actual

575
00:24:11,230 --> 00:24:14,710
scientists here we've got someone who

576
00:24:12,670 --> 00:24:16,240
spent a lot more time at University than

577
00:24:14,710 --> 00:24:18,100
I did in fact I was only there for the

578
00:24:16,240 --> 00:24:22,390
day and what have you got your degree in

579
00:24:18,099 --> 00:24:23,769
I have a PhD in geography and you said

580
00:24:22,390 --> 00:24:25,000
you're working in the earth sciences we

581
00:24:23,769 --> 00:24:26,289
just moved over this way little bit

582
00:24:25,000 --> 00:24:27,400
because there's screaming children

583
00:24:26,289 --> 00:24:30,700
coming from the discovery center

584
00:24:27,400 --> 00:24:32,590
downstairs there and you with what do

585
00:24:30,700 --> 00:24:34,539
you think a lot of people are drawn to

586
00:24:32,589 --> 00:24:38,409
Earth Sciences or it's just something

587
00:24:34,539 --> 00:24:41,289
you fall into I think it's a naturally

588
00:24:38,410 --> 00:24:43,210
compelling field because being able to

589
00:24:41,289 --> 00:24:45,779
have the tools to describe our

590
00:24:43,210 --> 00:24:47,769
environment and our world around us is

591
00:24:45,779 --> 00:24:49,779
intrinsically important to all of us

592
00:24:47,769 --> 00:24:52,089
it's very exciting and what is the

593
00:24:49,779 --> 00:24:54,428
actual topic you're dealing with

594
00:24:52,089 --> 00:24:56,470
day-to-day at the moment so I use

595
00:24:54,429 --> 00:24:58,630
satellites that are orbiting around the

596
00:24:56,470 --> 00:25:01,150
earth to measure processes on the

597
00:24:58,630 --> 00:25:03,580
Earth's surface such as the quality of

598
00:25:01,150 --> 00:25:07,330
water and the quality of freshwater

599

00:25:03,579 --> 00:25:09,009
habitats and how many it in any given

600
00:25:07,329 --> 00:25:10,359
time would you work within a day how

601
00:25:09,009 --> 00:25:13,599
many satellites are you keeping an eye

602
00:25:10,359 --> 00:25:15,699
on that do this there are a couple of

603
00:25:13,599 --> 00:25:19,750
key satellites that mentioned that

604
00:25:15,700 --> 00:25:22,058
measure the range of the electromagnetic

605
00:25:19,750 --> 00:25:25,329
spectrum that we can use to measure

606
00:25:22,058 --> 00:25:27,940
water quality the Landsat 8 sensor was

607
00:25:25,329 --> 00:25:30,159
recently launched by NASA last year and

608
00:25:27,940 --> 00:25:31,808
that's been successfully orbiting and is

609
00:25:30,160 --> 00:25:33,429
bringing in a whole host of new

610
00:25:31,808 --> 00:25:36,308
information and everyone's very excited

611
00:25:33,429 --> 00:25:37,600
about analyzing that data understand

612
00:25:36,308 --> 00:25:38,980
that would be every once in a while

613
00:25:37,599 --> 00:25:41,079

something goes wrong in a satellite gets

614

00:25:38,980 --> 00:25:42,370

lost or it goes off on launch have you

615

00:25:41,079 --> 00:25:43,899

ever been involved in any one of those

616

00:25:42,369 --> 00:25:46,808

ones you're going on there goes all that

617

00:25:43,900 --> 00:25:50,370

work I was going to do unfortunately

618

00:25:46,808 --> 00:25:52,899

satellites have a life expectancy and

619

00:25:50,369 --> 00:25:55,058

usually they exceed them which is very

620

00:25:52,900 --> 00:25:56,950

good for the scientific community but

621

00:25:55,058 --> 00:25:58,960

when a satellite does go down and you

622

00:25:56,950 --> 00:26:02,110

lose that data stream it can be very

623

00:25:58,960 --> 00:26:04,929

impactful the Landsat sensor that I was

624

00:26:02,109 --> 00:26:07,058

telling you about earlier the series of

625

00:26:04,929 --> 00:26:09,309

those sensors have been in orbit longer

626

00:26:07,058 --> 00:26:12,970

than any other remote sensing sensor up

627

00:26:09,308 --> 00:26:15,700

there since the late 1970s so it

628
00:26:12,970 --> 00:26:17,650
provides the the longest long-term

629
00:26:15,700 --> 00:26:19,299
record of satellite observations that we

630
00:26:17,650 --> 00:26:20,610
have which is very important for

631
00:26:19,299 --> 00:26:23,099
quantifying

632
00:26:20,609 --> 00:26:24,928
global environmental change and tracking

633
00:26:23,099 --> 00:26:27,869
the environments response to climate

634
00:26:24,929 --> 00:26:29,790
change hello much longer they expected

635
00:26:27,869 --> 00:26:30,989
to be active for can you guarantee much

636
00:26:29,789 --> 00:26:33,058
in the future with it continuing its

637
00:26:30,990 --> 00:26:35,039
been there so long well there have

638
00:26:33,058 --> 00:26:37,649
actually been a number of Landsat

639
00:26:35,039 --> 00:26:40,950
sensors so the recent one is Landsat 8

640
00:26:37,650 --> 00:26:44,309
so Landsat 7 and landsat 5 were orbiting

641
00:26:40,950 --> 00:26:47,160
for about a decade before that and the

642
00:26:44,308 --> 00:26:50,099
Landsat 5 sensor was a real trooper and

643
00:26:47,160 --> 00:26:52,558
it finally failed last year and the

644
00:26:50,099 --> 00:26:54,959
Landsat 7 Center has a flaw that

645
00:26:52,558 --> 00:26:57,509
retrieves incomplete data so the

646
00:26:54,960 --> 00:26:59,880
community was very upset at having a

647
00:26:57,509 --> 00:27:01,859
disruption in one of the longest term

648
00:26:59,880 --> 00:27:04,500
environmental records that we have in

649
00:27:01,859 --> 00:27:06,269
the current era so when Landsat 8

650
00:27:04,500 --> 00:27:09,240
successfully made it into launch

651
00:27:06,269 --> 00:27:11,548
everybody was very happy so you click

652
00:27:09,240 --> 00:27:13,440
ting this huge big data set what is the

653
00:27:11,548 --> 00:27:15,058
big challenge for having like a huge

654
00:27:13,440 --> 00:27:16,350
amount of raw data like that with

655
00:27:15,058 --> 00:27:17,759
processing it and getting it together

656

00:27:16,349 --> 00:27:21,599
what was the big challenge on a day to

657
00:27:17,759 --> 00:27:24,179
day basis well Geoscience Australia here

658
00:27:21,599 --> 00:27:26,759
has just reprocessed all of the historic

659
00:27:24,179 --> 00:27:29,340
data from the Landsat sensor and it

660
00:27:26,759 --> 00:27:31,470
represents over a petabyte of data so as

661
00:27:29,339 --> 00:27:34,859
you can imagine the data volumes

662
00:27:31,470 --> 00:27:36,390
enormous USB stick it is an enormous USB

663
00:27:34,859 --> 00:27:39,839
stick that's called the National

664
00:27:36,390 --> 00:27:41,520
computing infrastructure that is just

665
00:27:39,839 --> 00:27:43,619
incredible and how much gets added to it

666
00:27:41,519 --> 00:27:47,069
each time you get a download dumb from

667
00:27:43,619 --> 00:27:49,319
the satellite well they Australia has a

668
00:27:47,069 --> 00:27:50,869
downlink for the Landsat sensor here in

669
00:27:49,319 --> 00:27:52,730
the continent so they're constantly

670
00:27:50,869 --> 00:27:57,048

communicating and

671

00:27:52,730 --> 00:27:59,089

that data so it's delivered to us pretty

672

00:27:57,048 --> 00:28:01,308

close to near real time which allows us

673

00:27:59,089 --> 00:28:03,829

to do quite a lot of interesting

674

00:28:01,308 --> 00:28:06,470

environmental science especially because

675

00:28:03,829 --> 00:28:08,808

we can exploit that that historic record

676

00:28:06,470 --> 00:28:10,910

which makes our understanding of process

677

00:28:08,808 --> 00:28:13,579

much more valuable than just an

678

00:28:10,910 --> 00:28:15,169

instantaneous measurements so as an

679

00:28:13,579 --> 00:28:17,269

actual science who has an actual

680

00:28:15,169 --> 00:28:19,610

scientists with an actual degree what

681

00:28:17,269 --> 00:28:20,960

they want to shoot a science get your

682

00:28:19,609 --> 00:28:24,649

goat the most what's the one that makes

683

00:28:20,960 --> 00:28:26,480

you most I ever I think the one that

684

00:28:24,650 --> 00:28:29,000

maybe hits closest to home for me as

685
00:28:26,480 --> 00:28:31,099
climate denial as someone who's actively

686
00:28:29,000 --> 00:28:32,929
researching the effects and the impacts

687
00:28:31,099 --> 00:28:35,599
of climate change and we have observed

688
00:28:32,929 --> 00:28:37,580
them it's very hard to have someone tell

689
00:28:35,599 --> 00:28:41,269
you that climate change isn't happening

690
00:28:37,579 --> 00:28:42,798
or it doesn't exist or it's not going to

691
00:28:41,269 --> 00:28:44,450
result in many changes to our

692
00:28:42,798 --> 00:28:48,139
environment have you been directly

693
00:28:44,450 --> 00:28:52,100
accused of fiddling the books yourself I

694
00:28:48,140 --> 00:28:55,070
have and my response to that is if I

695
00:28:52,099 --> 00:28:58,159
wanted to be rich and famous I went in

696
00:28:55,069 --> 00:28:59,839
to become a scientist yes yeah yeah look

697
00:28:58,160 --> 00:29:02,298
if there's some kind of payoff going on

698
00:28:59,839 --> 00:29:04,909
it wouldn't be from doing this no it

699

00:29:02,298 --> 00:29:06,349

certainly isn't I can tell you that and

700

00:29:04,910 --> 00:29:07,850

nobody looking forward to hear on the

701

00:29:06,349 --> 00:29:09,439

last afternoon in the conference on

702

00:29:07,849 --> 00:29:11,928

sunday afternoon any special talk you're

703

00:29:09,440 --> 00:29:14,660

looking forward to I'm very interested

704

00:29:11,929 --> 00:29:17,240

in the kind of wrap up discussions about

705

00:29:14,660 --> 00:29:21,290

where the skeptical community is going

706

00:29:17,240 --> 00:29:23,120

and I hope to see it maybe some greater

707

00:29:21,289 --> 00:29:26,918

outreach from The Skeptical community

708

00:29:23,119 --> 00:29:29,869

it's very easy to sit in a group and

709

00:29:26,919 --> 00:29:32,540

criticize conspiracy theorist but I

710

00:29:29,869 --> 00:29:35,359

think that we need to try and reach

711

00:29:32,539 --> 00:29:37,490

across that and bring in at least those

712

00:29:35,359 --> 00:29:38,758

people who are open to compelling

713

00:29:37,490 --> 00:29:40,378
argument

714
00:29:38,759 --> 00:29:44,909
I'll enjoy the rest of your conference

715
00:29:40,378 --> 00:29:46,738
thank you and I have yet to more agent

716
00:29:44,909 --> 00:29:48,449
Smith's here what is the other what's

717
00:29:46,739 --> 00:29:51,209
your middle name Agent Smith middle name

718
00:29:48,449 --> 00:29:53,038
is Corrin and you are great now you're

719
00:29:51,209 --> 00:29:54,570
both very snappily dressed here is you

720
00:29:53,038 --> 00:29:56,699
have been all weekend normally there's

721
00:29:54,569 --> 00:29:58,468
some sort of incident but since P semis

722
00:29:56,699 --> 00:30:00,269
isn't attending today we haven't

723
00:29:58,469 --> 00:30:01,649
actually got an incident yet are you

724
00:30:00,269 --> 00:30:03,628
planning on having one before we finish

725
00:30:01,648 --> 00:30:05,788
by Sanderson art we could probably

726
00:30:03,628 --> 00:30:07,468
manufacture something but we're hoping

727
00:30:05,788 --> 00:30:08,999

that nothing happens that sounds like

728

00:30:07,469 --> 00:30:10,199

you got a conspiracy in mind there now

729

00:30:08,999 --> 00:30:12,778

what about you is anything happened on

730

00:30:10,199 --> 00:30:15,179

your watch oh we can't really talk about

731

00:30:12,778 --> 00:30:17,038

what's happened no okay I guess you

732

00:30:15,179 --> 00:30:18,359

can't really well let's get straight

733

00:30:17,038 --> 00:30:20,219

into the controversy the fact that you

734

00:30:18,358 --> 00:30:22,198

can't see anything that's happened is

735

00:30:20,219 --> 00:30:23,909

indication of how well we've been good

736

00:30:22,199 --> 00:30:26,519

at making sure nothing's happened now I

737

00:30:23,909 --> 00:30:28,139

have been asking people about the trying

738

00:30:26,519 --> 00:30:30,239

to get a controversy going try to get an

739

00:30:28,138 --> 00:30:32,458

incident going by mentioning and asking

740

00:30:30,239 --> 00:30:34,139

people who is the unpopular doctor

741

00:30:32,459 --> 00:30:35,339

because everyone has their favorite

742
00:30:34,138 --> 00:30:37,318
doctor but who's the one you think is

743
00:30:35,338 --> 00:30:38,940
least popular now I must point out we

744
00:30:37,318 --> 00:30:40,739
aren't bagging the person or the actor

745
00:30:38,940 --> 00:30:42,179
it's just their work in doctor who we

746
00:30:40,739 --> 00:30:43,828
think isn't as good as some of the other

747
00:30:42,179 --> 00:30:46,139
ones have you got a particular feeling

748
00:30:43,828 --> 00:30:49,198
about this I'm completely Doctor Who

749
00:30:46,138 --> 00:30:51,478
agnostic well okay so does that mean you

750
00:30:49,199 --> 00:30:52,889
so when people say Star Trek or doctor

751
00:30:51,479 --> 00:30:55,949
who you just you just don't get involved

752
00:30:52,888 --> 00:30:58,588
at all pretty much pretty much I might

753
00:30:55,949 --> 00:31:01,589
as well say Christianity or Islam dilute

754
00:30:58,588 --> 00:31:03,058
it so so you'd be a buck rogers in the

755
00:31:01,588 --> 00:31:04,948
25th century kind of guy then is that

756
00:31:03,058 --> 00:31:07,469
what you are Oh buck rogers near you

757
00:31:04,949 --> 00:31:09,028
takin me back yeah and battlestar

758
00:31:07,469 --> 00:31:11,219
galactica at the first series the

759
00:31:09,028 --> 00:31:13,318
original look I have a bit of a thing

760
00:31:11,219 --> 00:31:14,669
for battlestar galactica 1980 that there

761
00:31:13,318 --> 00:31:16,078
was a third series that is not actually

762
00:31:14,669 --> 00:31:18,149
part of the can and I loved that that's

763
00:31:16,078 --> 00:31:20,038
when the Cylons fight bushfires and

764
00:31:18,148 --> 00:31:21,538
stuff and check that one out yeah all

765
00:31:20,038 --> 00:31:23,429
that they became socially conscious what

766
00:31:21,538 --> 00:31:25,378
about you and the doctor who issue I'm a

767
00:31:23,429 --> 00:31:28,200
recent convert to the Doctor Who so I'm

768
00:31:25,378 --> 00:31:30,298
2005 series only okay

769
00:31:28,200 --> 00:31:33,690
and so that only gives me a small number

770

00:31:30,298 --> 00:31:34,740
of doctors to to not like and they're

771
00:31:33,690 --> 00:31:36,659
all pretty good but Christopher

772
00:31:34,740 --> 00:31:39,720
Eccleston's was met perhaps just a

773
00:31:36,659 --> 00:31:41,250
little wooden in his delivery sorry I a

774
00:31:39,720 --> 00:31:43,259
lot of people think of him because he

775
00:31:41,250 --> 00:31:45,329
was only in there for one year and a lot

776
00:31:43,259 --> 00:31:46,589
of people so I kind of liked him because

777
00:31:45,329 --> 00:31:48,418
he was a bit rough around the edges and

778
00:31:46,589 --> 00:31:50,220
seemed to like a bit of beef he had that

779
00:31:48,419 --> 00:31:52,470
sort of EastEnders touch to him mm-hmm

780
00:31:50,220 --> 00:31:54,659
and maybe that's part of it he doesn't

781
00:31:52,470 --> 00:31:57,870
seem like the doctors that sort of

782
00:31:54,659 --> 00:32:00,028
followed him the ones that were more

783
00:31:57,869 --> 00:32:02,189
intellectual or philosophical and he

784
00:32:00,028 --> 00:32:03,329

perhaps was a bit rough and tumble and

785

00:32:02,190 --> 00:32:05,580

yet he was the one that kicked it off

786

00:32:03,329 --> 00:32:09,509

again wasn't it he was yep so all credit

787

00:32:05,579 --> 00:32:10,849

to him and the writers for that it's

788

00:32:09,509 --> 00:32:12,808

been a great series since then

789

00:32:10,849 --> 00:32:14,908

congratulation to you guys for putting

790

00:32:12,808 --> 00:32:16,288

such a great work into this way realize

791

00:32:14,909 --> 00:32:18,028

it's a team effort for all the Canberra

792

00:32:16,288 --> 00:32:19,558

skeptics and you did a great dinner last

793

00:32:18,028 --> 00:32:21,359

night and it has been pointed out you

794

00:32:19,558 --> 00:32:23,308

have the great trick of selling off all

795

00:32:21,359 --> 00:32:25,048

your props so you set up the dinner you

796

00:32:23,308 --> 00:32:26,759

had to log in but you never had to

797

00:32:25,048 --> 00:32:28,888

logout you just had to wander off into

798

00:32:26,759 --> 00:32:30,599

the night and Sam's on clean up to

799
00:32:28,888 --> 00:32:33,240
that's right how many Daleks did you

800
00:32:30,599 --> 00:32:35,548
eventually auction off last night the

801
00:32:33,240 --> 00:32:37,710
total was eight yeah wow yeah well you

802
00:32:35,548 --> 00:32:38,759
raised some good money and what are you

803
00:32:37,710 --> 00:32:39,929
guys going to go to next year's

804
00:32:38,759 --> 00:32:41,339
convention or you're just not even

805
00:32:39,929 --> 00:32:43,679
thinking about that since this one's not

806
00:32:41,339 --> 00:32:44,908
even over yet we've got a long time

807
00:32:43,679 --> 00:32:49,830
before we have to think about that I

808
00:32:44,909 --> 00:32:52,590
think I am I seeing how this is gone and

809
00:32:49,829 --> 00:32:54,839
not having to actually see too many of

810
00:32:52,589 --> 00:32:56,939
the lectures I think I sort of missed

811
00:32:54,839 --> 00:32:59,519
out a little bit on that so going to the

812
00:32:56,940 --> 00:33:01,350
Brisbane one was a Brisbane at will be

813
00:32:59,519 --> 00:33:03,630
good look we appreciate your courage

814
00:33:01,349 --> 00:33:05,158
yeah thank you right now it's trying to

815
00:33:03,630 --> 00:33:07,799
make a charge for that lunch table see

816
00:33:05,159 --> 00:33:09,360
well they don't fit into the secret

817
00:33:07,798 --> 00:33:11,339
corner which is the secret corner

818
00:33:09,359 --> 00:33:12,898
because on one side they have done some

819
00:33:11,339 --> 00:33:14,158
drawings of cats cat and on that side

820
00:33:12,898 --> 00:33:15,388
they haven't quite finished the

821
00:33:14,159 --> 00:33:18,899
paintings they're doing yet he'll be

822
00:33:15,388 --> 00:33:20,788
safe oh and who we got here Mike McRae

823
00:33:18,898 --> 00:33:22,288
now you just gave a great chat about

824
00:33:20,788 --> 00:33:24,778
alternative medicine what were you angry

825
00:33:22,288 --> 00:33:27,528
at in it um I guess primarily actually

826
00:33:24,778 --> 00:33:31,079
looking at alternate medicine as being a

827

00:33:27,528 --> 00:33:32,750
response I guess rather than just a pure

828
00:33:31,079 --> 00:33:34,918
belief system that comes out of nothing

829
00:33:32,750 --> 00:33:36,808
looking at medicine is actually being

830
00:33:34,919 --> 00:33:38,220
scientifically informed but science

831
00:33:36,808 --> 00:33:40,378
being something that too many people

832
00:33:38,220 --> 00:33:40,960
represents a state authority so we've

833
00:33:40,378 --> 00:33:43,959
been looking at

834
00:33:40,960 --> 00:33:46,509
theories clear throughout the skeptic

835
00:33:43,960 --> 00:33:49,028
convention and conspiracy there is also

836
00:33:46,509 --> 00:33:50,500
being a response to a dominant system to

837
00:33:49,028 --> 00:33:52,509
say I don't trust you here's my

838
00:33:50,500 --> 00:33:53,648
alternative belief look I'm certainly on

839
00:33:52,509 --> 00:33:55,359
board with this in fact I've often said

840
00:33:53,648 --> 00:33:57,369
that a lot of skeptics go after the

841
00:33:55,359 --> 00:33:59,139

science for people with the anti-vaxxers

842

00:33:57,369 --> 00:34:00,908

and that sort of thing but in some ways

843

00:33:59,140 --> 00:34:02,440

they're more like anti-capitalist it's

844

00:34:00,909 --> 00:34:03,909

actually not so much the science they're

845

00:34:02,440 --> 00:34:06,159

suspicious of their suspicious of the

846

00:34:03,909 --> 00:34:07,899

capitalism and the industry behind it

847

00:34:06,159 --> 00:34:09,490

absolutely is a correlation there where

848

00:34:07,898 --> 00:34:11,230

there's different value systems at place

849

00:34:09,489 --> 00:34:13,329

so people have their values that inform

850

00:34:11,230 --> 00:34:14,619

various beliefs and those values come

851

00:34:13,329 --> 00:34:16,449

into it regardless of whether it's

852

00:34:14,619 --> 00:34:17,769

believing some alternative medicine or

853

00:34:16,449 --> 00:34:19,239

maybe to do with the environment to do

854

00:34:17,769 --> 00:34:21,909

with their own position in the community

855

00:34:19,239 --> 00:34:24,309

and often if your your cultural group so

856
00:34:21,909 --> 00:34:27,179
the group that you identify most with if

857
00:34:24,309 --> 00:34:30,579
it feels as if by some ways it's not

858
00:34:27,179 --> 00:34:33,159
it's being as we're disempowered or it's

859
00:34:30,579 --> 00:34:34,898
being somehow suppressed and in some way

860
00:34:33,159 --> 00:34:36,190
so if there's oppression going on then

861
00:34:34,898 --> 00:34:37,418
there's going to be a response to that

862
00:34:36,190 --> 00:34:39,099
so where there's power there's going to

863
00:34:37,418 --> 00:34:40,358
be that push back and often up when it

864
00:34:39,099 --> 00:34:42,159
comes to alternative medicine here is

865
00:34:40,358 --> 00:34:44,019
that push back that says I've had an

866
00:34:42,159 --> 00:34:45,940
experience with medicine that informs

867
00:34:44,019 --> 00:34:47,858
those values to say I don't trust you I

868
00:34:45,940 --> 00:34:49,659
don't believe in you in some way here is

869
00:34:47,858 --> 00:34:51,608
my subculture over here which empowers

870
00:34:49,659 --> 00:34:52,599
me and so you'll actually identify with

871
00:34:51,608 --> 00:34:54,159
that but there's something that's

872
00:34:52,599 --> 00:34:56,160
curious it goes on and that is with the

873
00:34:54,159 --> 00:34:58,269
community science is clearly

874
00:34:56,159 --> 00:35:00,219
legitimization it is a power and so

875
00:34:58,269 --> 00:35:01,539
while you're stepping back from it at

876
00:35:00,219 --> 00:35:03,368
the same time you can't divorce yourself

877
00:35:01,539 --> 00:35:05,769
from it entirely which is where we get

878
00:35:03,369 --> 00:35:07,660
pseudoscience and hybridization language

879
00:35:05,769 --> 00:35:09,400
they actually sound scientific because

880
00:35:07,659 --> 00:35:10,929
you kind of want to be identified you

881
00:35:09,400 --> 00:35:13,329
know as if you've got some legitimacy

882
00:35:10,929 --> 00:35:14,919
but you can't actually be part of that

883
00:35:13,329 --> 00:35:16,329
scientific culture as well and so you'll

884

00:35:14,920 --> 00:35:18,369
retain those values on the other side

885
00:35:16,329 --> 00:35:20,588
you obviously studied many of the

886
00:35:18,369 --> 00:35:22,210
different alternative practices what's

887
00:35:20,588 --> 00:35:24,099
your favorite us for I was going where

888
00:35:22,210 --> 00:35:26,740
that's out there I in terms of weird

889
00:35:24,099 --> 00:35:28,480
stuff um I'm a bit of fan of Reiki as

890
00:35:26,739 --> 00:35:30,069
Reiki has so many different variations

891
00:35:28,480 --> 00:35:32,079
you can even do it remotely over the

892
00:35:30,070 --> 00:35:34,180
phone sometimes I've got a really just

893
00:35:32,079 --> 00:35:35,889
anything to do with vitalism pretty much

894
00:35:34,179 --> 00:35:37,329
because you know violence and being that

895
00:35:35,889 --> 00:35:39,549
there is some sort of essence in things

896
00:35:37,329 --> 00:35:41,588
that is non-materialistic but where does

897
00:35:39,550 --> 00:35:43,330
that go back to the Victorian or before

898
00:35:41,588 --> 00:35:45,519

before that so it was actually quite a

899

00:35:43,329 --> 00:35:47,139

legitimate science to begin with in that

900

00:35:45,519 --> 00:35:48,940

initially when they looking at the

901

00:35:47,139 --> 00:35:50,679

material universe so being defined by

902

00:35:48,940 --> 00:35:52,389

laws and rules there was a response to

903

00:35:50,679 --> 00:35:53,750

that which said you can't reduce things

904

00:35:52,389 --> 00:35:56,480

down to

905

00:35:53,750 --> 00:35:58,099

he rules that define the universe things

906

00:35:56,480 --> 00:36:00,619

have much more of a nebulous concept

907

00:35:58,099 --> 00:36:02,750

more meaning so there was a response to

908

00:36:00,619 --> 00:36:05,449

said the more that you actually quantify

909

00:36:02,750 --> 00:36:07,280

things the more that you actually count

910

00:36:05,449 --> 00:36:08,599

things in such a way make up laws the

911

00:36:07,280 --> 00:36:09,830

more you take away from it you don't

912

00:36:08,599 --> 00:36:12,170

meaning and which is true i mean if you

913
00:36:09,829 --> 00:36:13,579
look at science you do quantify stuff

914
00:36:12,170 --> 00:36:14,599
but you always have to come back in a

915
00:36:13,579 --> 00:36:16,460
way and kind of give it some sort of

916
00:36:14,599 --> 00:36:18,500
meaning as well and people like Rupert

917
00:36:16,460 --> 00:36:19,670
Sheldrake hopped onto this and gone you

918
00:36:18,500 --> 00:36:20,900
know that that was where science should

919
00:36:19,670 --> 00:36:22,010
have gone and it never did because

920
00:36:20,900 --> 00:36:23,269
that's the kind of thing he says we

921
00:36:22,010 --> 00:36:25,070
that's where he reckons science goes

922
00:36:23,269 --> 00:36:26,389
wrong that's right and you do get I mean

923
00:36:25,070 --> 00:36:27,440
that's there's nothing new and the

924
00:36:26,389 --> 00:36:28,279
Sheldrake's of the world there's me

925
00:36:27,440 --> 00:36:29,510
something that's been around for

926
00:36:28,280 --> 00:36:31,010
centuries and that the more that you

927
00:36:29,510 --> 00:36:32,750
reduce things down the more you take

928
00:36:31,010 --> 00:36:36,020
away something from it there was a

929
00:36:32,750 --> 00:36:37,909
naturalist in the 1700s bono do before

930
00:36:36,019 --> 00:36:39,679
now do be fun was the first guy can't

931
00:36:37,909 --> 00:36:41,119
encyclopedia so you just want to write

932
00:36:39,679 --> 00:36:43,369
everything that was known at the time he

933
00:36:41,119 --> 00:36:45,019
went all these books but he thought

934
00:36:43,369 --> 00:36:46,489
matts was a useful thing that's not the

935
00:36:45,019 --> 00:36:47,989
be-all and end-all and he opposed that

936
00:36:46,489 --> 00:36:49,759
he said look maths actually takes away

937
00:36:47,989 --> 00:36:51,679
from stuff and that was during the time

938
00:36:49,760 --> 00:36:53,510
when vitalism was becoming a big idea

939
00:36:51,679 --> 00:36:56,269
because they wanted to find some force

940
00:36:53,510 --> 00:36:58,220
or some sort of rule that that governed

941

00:36:56,269 --> 00:36:59,780
biology so while you had Newton who said

942
00:36:58,219 --> 00:37:01,489
well look at gravity gravity is in

943
00:36:59,780 --> 00:37:02,990
everything has mass and everything else

944
00:37:01,489 --> 00:37:05,059
mass comes together thanks to this rule

945
00:37:02,989 --> 00:37:07,159
you know I found a hypothesis don't know

946
00:37:05,059 --> 00:37:08,659
what it is but it's a rule biologist

947
00:37:07,159 --> 00:37:10,219
wanted the same thing so well maybe this

948
00:37:08,659 --> 00:37:12,079
vitalism thing but every time they

949
00:37:10,219 --> 00:37:13,339
looked at it it robbed it of its meaning

950
00:37:12,079 --> 00:37:14,659
because you'd find all these little

951
00:37:13,340 --> 00:37:16,700
rules that made biology quite

952
00:37:14,659 --> 00:37:18,289
complicated so the vitalist sexually

953
00:37:16,699 --> 00:37:20,119
became more of people who said well

954
00:37:18,289 --> 00:37:21,800
don't look at the rules it's just a

955
00:37:20,119 --> 00:37:23,420

thing and that's where you get things

956

00:37:21,800 --> 00:37:26,690

like homeopathy coming out in the end in

957

00:37:23,420 --> 00:37:28,070

that homeopathy is all matter has some

958

00:37:26,690 --> 00:37:29,840

sort of vital essence to it this

959

00:37:28,070 --> 00:37:32,150

vitalism and if you can put it into

960

00:37:29,840 --> 00:37:33,829

water or sampson diliman and dilute it

961

00:37:32,150 --> 00:37:35,360

right down smack it a few times to get

962

00:37:33,829 --> 00:37:36,559

that vital essence out what you're doing

963

00:37:35,360 --> 00:37:38,720

is you're pulling out making it stronger

964

00:37:36,559 --> 00:37:41,179

hence where homeopathy came from in

965

00:37:38,719 --> 00:37:42,799

concept now a little bit after that we

966

00:37:41,179 --> 00:37:44,480

came up with things like avocados number

967

00:37:42,800 --> 00:37:46,880

we start understand more about how you

968

00:37:44,480 --> 00:37:49,579

can break matter down into atoms and

969

00:37:46,880 --> 00:37:50,960

smaller components but yeah in ish alee

970
00:37:49,579 --> 00:37:52,639
with all out the whole vitalism thing

971
00:37:50,960 --> 00:37:54,559
was actually quite scientific it's just

972
00:37:52,639 --> 00:37:56,779
we've discarded it belong since then so

973
00:37:54,559 --> 00:37:58,579
how do you argue it's ahead how do you

974
00:37:56,780 --> 00:38:01,700
argue on the same level with homeopathy

975
00:37:58,579 --> 00:38:03,079
because you're invoking some

976
00:38:01,699 --> 00:38:05,299
the spirit of science that they don't

977
00:38:03,079 --> 00:38:07,819
really follow you don't and that's real

978
00:38:05,300 --> 00:38:09,170
it comes down to um yeah it's probably

979
00:38:07,820 --> 00:38:10,730
the biggest question of ghost often is

980
00:38:09,170 --> 00:38:14,150
is how do you win over people how do you

981
00:38:10,730 --> 00:38:16,099
actually convince you don't you come dr.

982
00:38:14,150 --> 00:38:17,329
Craig climate car mentioned in his talk

983
00:38:16,099 --> 00:38:18,650
something quite interesting and that is

984
00:38:17,329 --> 00:38:20,900
when it comes to people you have to find

985
00:38:18,650 --> 00:38:22,910
shared values you know we are social

986
00:38:20,900 --> 00:38:25,070
animals we we always listen to people

987
00:38:22,909 --> 00:38:26,809
who seem to identify with with our

988
00:38:25,070 --> 00:38:28,370
identity in some way so you have to

989
00:38:26,809 --> 00:38:29,630
identify in someone what what things

990
00:38:28,369 --> 00:38:31,339
that we already share if you don't share

991
00:38:29,630 --> 00:38:33,619
science find something else to discuss

992
00:38:31,340 --> 00:38:35,660
and then as they slowly identify you as

993
00:38:33,619 --> 00:38:37,099
being a friend or someone who is in part

994
00:38:35,659 --> 00:38:38,539
of their social group more of those

995
00:38:37,099 --> 00:38:40,309
values will come across and they may

996
00:38:38,539 --> 00:38:41,869
actually evolve our time but there is no

997
00:38:40,309 --> 00:38:43,009
conversation you can have to sit down

998

00:38:41,869 --> 00:38:44,719
with a stranger to say I'm going to

999
00:38:43,010 --> 00:38:46,340
convince you so if you if that's your

1000
00:38:44,719 --> 00:38:47,719
goal you're better off just having a

1001
00:38:46,340 --> 00:38:50,300
chat about something that you do

1002
00:38:47,719 --> 00:38:52,219
actually share sports politics art

1003
00:38:50,300 --> 00:38:53,900
whatever it is and ignore the rest

1004
00:38:52,219 --> 00:38:55,639
because now you've actually set up in

1005
00:38:53,900 --> 00:38:56,630
someone the idea goes to know that guy

1006
00:38:55,639 --> 00:38:58,519
who was talking about aren't we both

1007
00:38:56,630 --> 00:39:00,650
like that yeah there are into science

1008
00:38:58,519 --> 00:39:02,239
uceda just that little bit to say maybe

1009
00:39:00,650 --> 00:39:04,280
we share a little bit more than just a

1010
00:39:02,239 --> 00:39:06,739
love of something like art is it worth

1011
00:39:04,280 --> 00:39:08,000
trying me well it worked for me it it

1012
00:39:06,739 --> 00:39:09,589

worked for me argument which you often

1013

00:39:08,000 --> 00:39:11,840

hear from people that take alternative

1014

00:39:09,590 --> 00:39:13,760

cures only if you actually share the

1015

00:39:11,840 --> 00:39:14,990

same social group only if I already like

1016

00:39:13,760 --> 00:39:16,280

you if there's somebody there that you

1017

00:39:14,989 --> 00:39:17,899

have an influence where you say well

1018

00:39:16,280 --> 00:39:19,280

this work for me if you're a powerful

1019

00:39:17,900 --> 00:39:21,200

person in their social group they'll be

1020

00:39:19,280 --> 00:39:22,910

influenced if you're not forget about it

1021

00:39:21,199 --> 00:39:24,409

it's not going to work on that level we

1022

00:39:22,909 --> 00:39:26,119

have to approach this culturally you

1023

00:39:24,409 --> 00:39:27,649

know we can't be individuals going up

1024

00:39:26,119 --> 00:39:29,420

there changing minds we have to operate

1025

00:39:27,650 --> 00:39:30,950

on a level that says first of all you

1026

00:39:29,420 --> 00:39:32,510

have to like me first of all you have to

1027
00:39:30,949 --> 00:39:34,939
be part of my social group and share my

1028
00:39:32,510 --> 00:39:36,410
identity and then maybe we can discuss

1029
00:39:34,940 --> 00:39:38,000
things in overtime your beliefs will

1030
00:39:36,409 --> 00:39:39,980
evolve and I think the more that we do

1031
00:39:38,000 --> 00:39:41,840
that more we build the the cultural

1032
00:39:39,980 --> 00:39:43,730
identity rather than isolate and

1033
00:39:41,840 --> 00:39:45,289
ostracize and say you belong to that

1034
00:39:43,730 --> 00:39:46,880
other group you're an idiot who believes

1035
00:39:45,289 --> 00:39:47,960
in different things then all you're

1036
00:39:46,880 --> 00:39:49,760
doing is just pushing them into another

1037
00:39:47,960 --> 00:39:51,139
you know subculture that means you can't

1038
00:39:49,760 --> 00:39:52,550
communicate it was it you that mentioned

1039
00:39:51,139 --> 00:39:54,019
that Al Gore was perhaps possibly the

1040
00:39:52,550 --> 00:39:55,730
worst spokesman for climate change you

1041
00:39:54,019 --> 00:39:57,019
can have for various reasons know that

1042
00:39:55,730 --> 00:39:58,820
that was that was Craig but I mean

1043
00:39:57,019 --> 00:40:00,050
that's a good good example of that in

1044
00:39:58,820 --> 00:40:01,880
that you've actually got someone who

1045
00:40:00,050 --> 00:40:04,280
already belongs to one subculture saying

1046
00:40:01,880 --> 00:40:05,930
well here's this other system those

1047
00:40:04,280 --> 00:40:07,519
people who identify them is not being

1048
00:40:05,929 --> 00:40:08,569
part of them and not going to listen and

1049
00:40:07,519 --> 00:40:10,309
we do that all the time will go to

1050
00:40:08,570 --> 00:40:12,140
someone who is not part of our group and

1051
00:40:10,309 --> 00:40:13,429
say you're wrong you don't believe in

1052
00:40:12,139 --> 00:40:15,379
the same things I do here's where you

1053
00:40:13,429 --> 00:40:16,608
should be right we haven't got to hope

1054
00:40:15,380 --> 00:40:17,930
whereas you start with things where

1055

00:40:16,608 --> 00:40:20,088
people already agreeing with you they

1056
00:40:17,929 --> 00:40:21,980
already value the same things and forget

1057
00:40:20,088 --> 00:40:23,659
the part we have to convince them slowly

1058
00:40:21,980 --> 00:40:25,068
over time beliefs will actually change

1059
00:40:23,659 --> 00:40:26,298
we're never going to do it completely

1060
00:40:25,068 --> 00:40:27,829
we're not going to have a perfect

1061
00:40:26,298 --> 00:40:29,358
society where everybody is going to be

1062
00:40:27,829 --> 00:40:31,369
scientifically informed and sharing

1063
00:40:29,358 --> 00:40:32,389
those values and maybe we shouldn't I

1064
00:40:31,369 --> 00:40:34,548
mean maybe there is strength in that

1065
00:40:32,389 --> 00:40:36,409
diversity but what we do need to do is

1066
00:40:34,548 --> 00:40:38,329
try to monitor that people's decisions

1067
00:40:36,409 --> 00:40:40,399
are being made with their own interests

1068
00:40:38,329 --> 00:40:42,109
are they want the best outcome and

1069
00:40:40,400 --> 00:40:43,509

that's always hard with medicine because

1070

00:40:42,108 --> 00:40:45,920

with medicine people actually make

1071

00:40:43,509 --> 00:40:47,420

choices that they don't want people want

1072

00:40:45,920 --> 00:40:49,278

to be healthy when they make a choice

1073

00:40:47,420 --> 00:40:50,990

that makes them unhealthy where do we

1074

00:40:49,278 --> 00:40:52,639

stand ethically and I think that's where

1075

00:40:50,989 --> 00:40:53,838

really we have to find a way of doing it

1076

00:40:52,639 --> 00:40:55,460

that sort of brings people together

1077

00:40:53,838 --> 00:40:57,409

rather than just divert you know

1078

00:40:55,460 --> 00:40:59,750

dividing people into different cultures

1079

00:40:57,409 --> 00:41:02,000

here in Canberra the topics being sort

1080

00:40:59,750 --> 00:41:03,650

of conspiracies all weekend now is there

1081

00:41:02,000 --> 00:41:05,480

one conspiracy that despite the lack of

1082

00:41:03,650 --> 00:41:06,950

evidence you would find a rather good if

1083

00:41:05,480 --> 00:41:08,539

it was true or you like would you be

1084
00:41:06,949 --> 00:41:09,980
tickled pink if it was actually real a

1085
00:41:08,539 --> 00:41:11,599
conspiracy look to be honest I know

1086
00:41:09,980 --> 00:41:13,699
absolutely nothing about the whole JFK

1087
00:41:11,599 --> 00:41:15,650
conspiracy my partner's American and

1088
00:41:13,699 --> 00:41:17,419
they had recently that Australian guy

1089
00:41:15,650 --> 00:41:19,160
who's come out with the ballistics

1090
00:41:17,420 --> 00:41:20,930
reports and the Secret Service goal I've

1091
00:41:19,159 --> 00:41:22,068
done it yeah that's right um to be

1092
00:41:20,929 --> 00:41:23,690
honest that kind of tweak no way I've

1093
00:41:22,068 --> 00:41:25,489
got no idea and this is a difference I

1094
00:41:23,690 --> 00:41:26,809
way that sounds plausible but I know my

1095
00:41:25,489 --> 00:41:28,159
limitations here I know I know nothing

1096
00:41:26,809 --> 00:41:30,009
about it but I mentioned it to my

1097
00:41:28,159 --> 00:41:32,000
partner she got a little bit offended

1098
00:41:30,009 --> 00:41:34,608
being American you know this is

1099
00:41:32,000 --> 00:41:36,289
something to hurt that has a very deep

1100
00:41:34,608 --> 00:41:37,400
cultural meaning so for me to say

1101
00:41:36,289 --> 00:41:38,690
weren't there something is and she's

1102
00:41:37,400 --> 00:41:40,519
gone well this is Australian who's

1103
00:41:38,690 --> 00:41:42,920
coming out and rubbished our reports she

1104
00:41:40,518 --> 00:41:44,419
acted emotionally towards it I still

1105
00:41:42,920 --> 00:41:46,369
have no idea maybe something to read up

1106
00:41:44,420 --> 00:41:48,289
on one day i'm not sure but that was

1107
00:41:46,369 --> 00:41:50,390
something that tweaked me went based on

1108
00:41:48,289 --> 00:41:51,799
my ignorance that actually sounds a

1109
00:41:50,389 --> 00:41:53,358
little bit plausible it sounds less like

1110
00:41:51,798 --> 00:41:54,469
these other conspiracies that require a

1111
00:41:53,358 --> 00:41:55,880
whole lot of people to keep a secret

1112

00:41:54,469 --> 00:41:57,048
this seemed like something that you

1113
00:41:55,880 --> 00:41:59,298
could actually sweep under the rug and

1114
00:41:57,048 --> 00:42:01,009
sound okay but to be honest as I said

1115
00:41:59,298 --> 00:42:02,298
I've got no idea and where can we find

1116
00:42:01,009 --> 00:42:03,980
you online of the find out more about

1117
00:42:02,298 --> 00:42:05,509
the talk you just gave you could

1118
00:42:03,980 --> 00:42:08,240
probably just stuff on me on Twitter so

1119
00:42:05,509 --> 00:42:10,579
it's tribal scientist cool okay it's not

1120
00:42:08,239 --> 00:42:11,750
a discussion not an argument absolutely

1121
00:42:10,579 --> 00:42:14,150
that's always there find the values you

1122
00:42:11,750 --> 00:42:16,730
share first well all the clouds rushing

1123
00:42:14,150 --> 00:42:18,230
at it's a wrap for 2013 skeptics

1124
00:42:16,730 --> 00:42:19,909
convention and of course you made the

1125
00:42:18,230 --> 00:42:21,409
big announcement there Richard at the

1126
00:42:19,909 --> 00:42:23,328

end which got a huge round of applause

1127

00:42:21,409 --> 00:42:24,509

almost a standing ovation what's the go

1128

00:42:23,329 --> 00:42:25,769

for next year

1129

00:42:24,510 --> 00:42:28,200

announced that I was leaving everybody

1130

00:42:25,769 --> 00:42:30,150

aboard now then the announcement is the

1131

00:42:28,199 --> 00:42:32,969

stone skeptics National Convention for

1132

00:42:30,150 --> 00:42:35,760

2014 will be in sydney australia on the

1133

00:42:32,969 --> 00:42:38,369

weekend of the 29th and 30th of november

1134

00:42:35,760 --> 00:42:40,740

special guests the skeptics guide to the

1135

00:42:38,369 --> 00:42:42,359

universe in George hurry up wow so look

1136

00:42:40,739 --> 00:42:43,739

that's a third great convention in a row

1137

00:42:42,360 --> 00:42:45,240

and of course it had a wonderful feel of

1138

00:42:43,739 --> 00:42:46,919

Canberra here it's had a great venue

1139

00:42:45,239 --> 00:42:48,779

it's going to be hard to top the CSIRO

1140

00:42:46,920 --> 00:42:50,369

it's a wonderful place look at all these

1141
00:42:48,780 --> 00:42:52,740
people streaming out there delighted

1142
00:42:50,369 --> 00:42:56,159
they had a wonderful weekend thank you

1143
00:42:52,739 --> 00:42:58,379
so how was a few this weekend how was

1144
00:42:56,159 --> 00:43:00,389
this very Canberra skeptical event for

1145
00:42:58,380 --> 00:43:01,740
you it was wonderful it was incredibly

1146
00:43:00,389 --> 00:43:04,199
exhausting and I got three hours sleep

1147
00:43:01,739 --> 00:43:07,500
last night ah that means is you've been

1148
00:43:04,199 --> 00:43:09,029
doing some post activities um yes yes I

1149
00:43:07,500 --> 00:43:10,349
went to the pub last night actually yeah

1150
00:43:09,030 --> 00:43:14,160
no that's great now what do you think

1151
00:43:10,349 --> 00:43:17,130
was the best talk today oh that's a very

1152
00:43:14,159 --> 00:43:18,389
tough call but I'm probably gonna go

1153
00:43:17,130 --> 00:43:19,980
with Patrick Stokes because I was

1154
00:43:18,389 --> 00:43:21,449
looking forward to it so much and how do

1155
00:43:19,980 --> 00:43:22,800
you feel about the excitement of next

1156
00:43:21,449 --> 00:43:25,949
year when skeptics guide to the universe

1157
00:43:22,800 --> 00:43:27,150
and George harbor I barely have to

1158
00:43:25,949 --> 00:43:29,579
travel which means I don't really get

1159
00:43:27,150 --> 00:43:32,280
much of a holiday actually but no very

1160
00:43:29,579 --> 00:43:34,650
cool very exciting what do you think was

1161
00:43:32,280 --> 00:43:36,330
the big highlight of the weekend on well

1162
00:43:34,650 --> 00:43:38,430
I thought the whole thing was a

1163
00:43:36,329 --> 00:43:40,289
highlight dad my highlight personally

1164
00:43:38,429 --> 00:43:42,719
maenad was the fact that last year's you

1165
00:43:40,289 --> 00:43:44,250
know I was in convenor so my highlight

1166
00:43:42,719 --> 00:43:46,319
was that I could sit there and watch it

1167
00:43:44,250 --> 00:43:47,820
all go by and relax totally right you

1168
00:43:46,320 --> 00:43:49,950
have to do nothing now I've got to say

1169

00:43:47,820 --> 00:43:52,710
last year's convention in Melbourne had

1170
00:43:49,949 --> 00:43:54,239
a slightly more younger touch because of

1171
00:43:52,710 --> 00:43:56,190
the young Melbourne skeptics I thought

1172
00:43:54,239 --> 00:43:58,229
that they're slightly older crowd here

1173
00:43:56,190 --> 00:43:59,940
but a slightly more varied crowd than

1174
00:43:58,230 --> 00:44:02,579
last year am I getting that wrong or not

1175
00:43:59,940 --> 00:44:04,500
well as you can see may know there's a

1176
00:44:02,579 --> 00:44:06,809
little bit of gray on the roof here but

1177
00:44:04,500 --> 00:44:09,389
I'm a young at heart sort of guys I know

1178
00:44:06,809 --> 00:44:10,949
what we really did aim very very hard to

1179
00:44:09,389 --> 00:44:13,949
get the young Australian skeptics there

1180
00:44:10,949 --> 00:44:16,529
we had the special lunch with Rebecca

1181
00:44:13,949 --> 00:44:18,239
and DJ there to get the Mennonites to I

1182
00:44:16,530 --> 00:44:20,670
spoke with Jason ball and a number of

1183
00:44:18,239 --> 00:44:22,079

others and we work very hard to get the

1184

00:44:20,670 --> 00:44:23,700

young ones because they're the future of

1185

00:44:22,079 --> 00:44:25,440

skepticism as to it because I love them

1186

00:44:23,699 --> 00:44:26,689

are based in Melbourne to and maybe not

1187

00:44:25,440 --> 00:44:29,599

so many around the Canberra

1188

00:44:26,690 --> 00:44:31,639

well they all hang out to hang around

1189

00:44:29,599 --> 00:44:33,079

together on social media anyway so it

1190

00:44:31,639 --> 00:44:34,969

doesn't really matter where they are but

1191

00:44:33,079 --> 00:44:36,890

look getting back to this one credit

1192

00:44:34,969 --> 00:44:39,559

where credit's due this is a fabulous

1193

00:44:36,889 --> 00:44:41,659

location the csr oh yeah Discovery

1194

00:44:39,559 --> 00:44:43,969

Center its rate internet great internet

1195

00:44:41,659 --> 00:44:47,299

connection here it is particularly when

1196

00:44:43,969 --> 00:44:49,639

it works made ad excellent look out now

1197

00:44:47,300 --> 00:44:51,440

you off to the anomalous psychology in

1198
00:44:49,639 --> 00:44:54,618
the pub tonight yes purely for the

1199
00:44:51,440 --> 00:44:56,420
anomalous content nothing else dragging

1200
00:44:54,619 --> 00:44:58,099
me there at all manner okay and your

1201
00:44:56,420 --> 00:44:59,358
very favorite talk about of the year

1202
00:44:58,099 --> 00:45:01,640
there must have been one talk this

1203
00:44:59,358 --> 00:45:06,679
afternoon that got you going well well I

1204
00:45:01,639 --> 00:45:09,078
thought that Craig was from the CSIRO as

1205
00:45:06,679 --> 00:45:10,759
an old science communicated myself and

1206
00:45:09,079 --> 00:45:13,910
it turns out we have worked in the same

1207
00:45:10,760 --> 00:45:17,450
place at slightly different times and I

1208
00:45:13,909 --> 00:45:19,730
thought his his talk about science

1209
00:45:17,449 --> 00:45:22,219
communication in the way that we need to

1210
00:45:19,730 --> 00:45:24,260
reach out to people were very very good

1211
00:45:22,219 --> 00:45:28,129
but amanda de vows a number of other

1212
00:45:24,260 --> 00:45:30,470
people Paul Willis as well and really

1213
00:45:28,130 --> 00:45:33,200
when it's all said and done skepticism

1214
00:45:30,469 --> 00:45:34,699
it's fine to sit around in halls and

1215
00:45:33,199 --> 00:45:37,189
convention theatres and talk about

1216
00:45:34,699 --> 00:45:38,838
skepticism but ultimately we've got to

1217
00:45:37,190 --> 00:45:41,510
get it out there into the masses and

1218
00:45:38,838 --> 00:45:43,130
that's a very difficult thing to do look

1219
00:45:41,510 --> 00:45:45,800
at the we here just making a quick

1220
00:45:43,130 --> 00:45:47,150
getaway from the anu car park we think

1221
00:45:45,800 --> 00:45:48,260
we've got the same car we came in but

1222
00:45:47,150 --> 00:45:50,329
frankly it doesn't matter this what

1223
00:45:48,260 --> 00:45:52,160
isn't too bad is it it's not too bad at

1224
00:45:50,329 --> 00:45:53,900
all I'm not too bad at all now of course

1225
00:45:52,159 --> 00:45:55,670
you know what do you think was a

1226

00:45:53,900 --> 00:45:58,309
highlight of weekend for you there well

1227
00:45:55,670 --> 00:46:00,858
firstly about the car okay in quantum

1228
00:45:58,309 --> 00:46:02,779
mechanics the wave function one electron

1229
00:46:00,858 --> 00:46:05,150
is the same as the wave function for

1230
00:46:02,780 --> 00:46:06,619
another and if two electrons happen to

1231
00:46:05,150 --> 00:46:09,559
collide you can no longer distinguish

1232
00:46:06,619 --> 00:46:11,269
which one was which so so if quantum

1233
00:46:09,559 --> 00:46:12,650
mechanics applied on a larger scale it

1234
00:46:11,269 --> 00:46:14,480
wouldn't really matter which car we were

1235
00:46:12,650 --> 00:46:17,690
in it would but all cars would be

1236
00:46:14,480 --> 00:46:19,490
equivalent you see a lot like that I'll

1237
00:46:17,690 --> 00:46:22,159
look with we're already playing already

1238
00:46:19,489 --> 00:46:24,348
playing a car tag with your other people

1239
00:46:22,159 --> 00:46:25,818
on that we've got the robotic Aaron the

1240
00:46:24,349 --> 00:46:27,980

butter cow in front of us a world

1241
00:46:25,818 --> 00:46:29,779
someone's got the corporate car haven't

1242
00:46:27,980 --> 00:46:31,309
they now Richard Saunders you'd be a

1243
00:46:29,780 --> 00:46:33,319
little bit tired after all that what's

1244
00:46:31,309 --> 00:46:35,179
been going on this weekend I am it was

1245
00:46:33,318 --> 00:46:35,779
exhausting but I mean it was a big day

1246
00:46:35,179 --> 00:46:37,039
on Friday

1247
00:46:35,780 --> 00:46:39,440
getting down here then the Friday

1248
00:46:37,039 --> 00:46:41,269
evening events saturday was up full-on

1249
00:46:39,440 --> 00:46:43,880
than the dinner and then today's been

1250
00:46:41,269 --> 00:46:45,440
really busy too so we're four very tired

1251
00:46:43,880 --> 00:46:46,880
but happy skeptics driving back to

1252
00:46:45,440 --> 00:46:49,039
Sydney and once again I want to thank

1253
00:46:46,880 --> 00:46:51,050
these skeptic zone lessness for for

1254
00:46:49,039 --> 00:46:52,219
helping me that be able to come here

1255
00:46:51,050 --> 00:46:53,510
this weekend and I hope that the

1256
00:46:52,219 --> 00:46:56,209
interviews have lived up to what you

1257
00:46:53,510 --> 00:46:58,340
wanted probably not behaved to you I say

1258
00:46:56,210 --> 00:47:00,470
if they haven't and it's time to get off

1259
00:46:58,340 --> 00:47:03,559
to the Campbelltown row a car park now

1260
00:47:00,469 --> 00:47:08,079
we're of course tights our pants and

1261
00:47:03,559 --> 00:47:08,079
stretch denim rules forever

1262
00:47:11,230 --> 00:47:13,289
you

1263
00:47:22,349 --> 00:47:26,670
the internet maybe the information

1264
00:47:24,539 --> 00:47:28,199
superhighway but there is no promise

1265
00:47:26,670 --> 00:47:30,389
that the information is factually

1266
00:47:28,199 --> 00:47:32,429
correct so when people use the internet

1267
00:47:30,389 --> 00:47:34,409
to educate themselves they are at risk

1268
00:47:32,429 --> 00:47:36,839
of being misinformed and reaching false

1269
00:47:34,409 --> 00:47:39,359
conclusions but don't worry there is a

1270
00:47:36,840 --> 00:47:41,190
solution Roboto is a browser plug-in

1271
00:47:39,360 --> 00:47:42,809
which tells users when the webpage they

1272
00:47:41,190 --> 00:47:45,539
are currently viewing has been disputed

1273
00:47:42,809 --> 00:47:47,610
elsewhere on the internet with rabbit

1274
00:47:45,539 --> 00:47:49,590
are installed any time you read a page

1275
00:47:47,610 --> 00:47:51,390
making a claim of truth you have

1276
00:47:49,590 --> 00:47:54,030
immediate access to another page which

1277
00:47:51,389 --> 00:47:55,679
explains why that claim is incorrect so

1278
00:47:54,030 --> 00:47:57,870
you not only get an opposing perspective

1279
00:47:55,679 --> 00:47:59,849
and more information on the subject but

1280
00:47:57,869 --> 00:48:02,279
you get a direct demonstration of how to

1281
00:47:59,849 --> 00:48:04,739
critically analyze the page you just

1282
00:48:02,280 --> 00:48:06,480
read imagine a world where every

1283

00:48:04,739 --> 00:48:08,489
internet user was able to critically

1284
00:48:06,480 --> 00:48:10,800
reflect on the information that the

1285
00:48:08,489 --> 00:48:12,359
internet presents to them because that

1286
00:48:10,800 --> 00:48:15,210
is the internet that row butter and its

1287
00:48:12,360 --> 00:48:19,620
community of volunteers are building go

1288
00:48:15,210 --> 00:48:22,289
to rebuttal com that's our b ut our com

1289
00:48:19,619 --> 00:48:23,579
install the plug-in and see what you can

1290
00:48:22,289 --> 00:48:26,239
do to help us bring about this

1291
00:48:23,579 --> 00:48:26,239
revolution

1292
00:48:42,760 --> 00:48:47,720
thank you for listening to the skeptic

1293
00:48:44,989 --> 00:48:50,750
zonen once again congratulations to

1294
00:48:47,719 --> 00:48:53,750
Loretta Marin for that wonderful award

1295
00:48:50,750 --> 00:48:57,170
of the order of australia now before I

1296
00:48:53,750 --> 00:48:59,750
go my friends in Sydney don't forget to

1297
00:48:57,170 --> 00:49:03,200

come along to Sydney skeptics in the pub

1298

00:48:59,750 --> 00:49:06,380

on Thursday the sixth of february at the

1299

00:49:03,199 --> 00:49:10,608

crown hotel our guest speaker is Rob

1300

00:49:06,380 --> 00:49:14,000

burn from rotary about ending polio end

1301

00:49:10,608 --> 00:49:17,389

polio now campaign and rotary do a

1302

00:49:14,000 --> 00:49:20,300

wonderful job internationally in helping

1303

00:49:17,389 --> 00:49:24,139

to bring this disease to hopefully a

1304

00:49:20,300 --> 00:49:29,630

swift end for more information go to

1305

00:49:24,139 --> 00:49:31,460

meetup.com / aust skeptics so those

1306

00:49:29,630 --> 00:49:34,309

people in Sydney please come along and

1307

00:49:31,460 --> 00:49:37,760

hear what rotary has to say about ending

1308

00:49:34,309 --> 00:49:40,338

polio well I better go and lie down for

1309

00:49:37,760 --> 00:49:42,230

a week make sure I'm well rested and

1310

00:49:40,338 --> 00:49:45,588

recovered for the next week's episode on

1311

00:49:42,230 --> 00:49:47,960

the skeptic zone until then this is

1312
00:49:45,588 --> 00:49:54,108
Richard Saunders signing off from Sydney

1313
00:49:47,960 --> 00:49:58,789
Australia you've been listening to the

1314
00:49:54,108 --> 00:50:02,630
skeptical zone visit our website at www

1315
00:49:58,789 --> 00:50:06,338
skeptics on TV for comments contacts and

1316
00:50:02,630 --> 00:50:06,338
extra video reports

1317
00:50:09,440 --> 00:50:11,470
Oh