

The Skeptic Zone
Show 276 - 2 Feb 2014



Loretta Marron OAM

1
00:00:22,370 --> 00:00:09,080
welcome to the skeptic zone the podcast

2
00:00:28,830 --> 00:00:25,260
hello and welcome to the skeptics out

3
00:00:30,509 --> 00:00:28,840
before the second of february2014 my

4
00:00:32,429 --> 00:00:30,519
friends i'll keep this introduction

5
00:00:34,770 --> 00:00:32,439
brief because i'm just getting over a

6
00:00:38,030 --> 00:00:34,780
chest infection as you can hear I'm not

7
00:00:40,140 --> 00:00:38,040
firing on all cylinders today

8
00:00:42,960 --> 00:00:40,150
nevertheless I'm excited to bring you

9
00:00:44,610 --> 00:00:42,970
this episode of the show I'm going to be

10
00:00:49,650 --> 00:00:44,620
interviewing a dear old friend of mine

11
00:00:51,119 --> 00:00:49,660
the jelly bean lady Loretta Marin she's

12
00:00:53,189 --> 00:00:51,129
known as the jelly bean lady because

13
00:00:55,740 --> 00:00:53,199

well you'll hear why coming up in the

14

00:00:58,139 --> 00:00:55,750

interview but wow what wonderful news

15

00:01:00,750 --> 00:00:58,149

for science and reason in Australia

16

00:01:03,259 --> 00:01:00,760

Loretta Marin who's been a long time

17

00:01:07,440 --> 00:01:03,269

campaigner against health fraud and

18

00:01:09,930 --> 00:01:07,450

quackery was on Australia Day the 26th

19

00:01:12,180 --> 00:01:09,940

of January awarded one of our nation's

20

00:01:15,710 --> 00:01:12,190

highest honors the order of australia

21

00:01:18,840 --> 00:01:15,720

for her work in uncovering quackery

22

00:01:22,290 --> 00:01:18,850

busting the quacks and so on wonderful

23

00:01:24,330 --> 00:01:22,300

news interview with Loretta Marin OAM as

24

00:01:26,910 --> 00:01:24,340

she's now known coming up at the top of

25

00:01:28,559 --> 00:01:26,920

the show following that as ever it's a

26

00:01:33,210 --> 00:01:28,569

week in science from the Royal

27

00:01:38,999 --> 00:01:33,220

Institution of Australia w WR I a u.s.

28

00:01:40,499 --> 00:01:39,009

org a you one day one day I'll get down

29

00:01:42,029 --> 00:01:40,509

there Paul Willis one day i'll come down

30

00:01:43,830 --> 00:01:42,039

to visit you guys at the Royal

31

00:01:46,740 --> 00:01:43,840

Institution I Australia looking forward

32

00:01:49,650 --> 00:01:46,750

to that and to round off the show lots

33

00:01:51,510 --> 00:01:49,660

more interviews from Maynard Maynard

34

00:01:54,660 --> 00:01:51,520

spooky action at the National Convention

35

00:01:57,990 --> 00:01:54,670

held last year in Canberra in fact this

36

00:02:00,869 --> 00:01:58,000

is the rapper the last series of

37

00:02:03,510 --> 00:02:00,879

interviews from Maynard from the

38

00:02:07,999 --> 00:02:03,520

convention main are jets to a PhD in

39

00:02:10,949 --> 00:02:08,009

earth sciences some more agent Smith's

40

00:02:12,890 --> 00:02:10,959

mysterious Mike McCrae talking about

41

00:02:15,390 --> 00:02:12,900

science and alternative medicine and

42

00:02:16,740 --> 00:02:15,400

then the sort of a grab bag of people as

43

00:02:20,100 --> 00:02:16,750

they leave the convention and their

44

00:02:22,050 --> 00:02:20,110

thoughts on the whole weekend and it's I

45

00:02:23,970 --> 00:02:22,060

guess it's my last opportunity to really

46

00:02:26,880 --> 00:02:23,980

thank may nod for the wonderful work

47

00:02:29,010 --> 00:02:26,890

tireless work he did for all of us at

48

00:02:30,390 --> 00:02:29,020

the National Convention with his reports

49

00:02:33,760 --> 00:02:30,400

going on now for my

50

00:02:36,100 --> 00:02:33,770

fantastic work Maynard and thank you to

51
00:02:38,380 --> 00:02:36,110
all those people who helped may not make

52
00:02:40,930 --> 00:02:38,390
the convention well while I go

53
00:02:44,290 --> 00:02:40,940
downstairs and look for some soothing

54
00:02:51,350 --> 00:02:44,300
ginger tea for my poor old vocal cords

55
00:02:51,360 --> 00:03:07,379
you

56
00:03:11,589 --> 00:03:09,819
well folks I'm a little bit under the

57
00:03:14,140 --> 00:03:11,599
weather as you can hear just getting

58
00:03:16,240 --> 00:03:14,150
over some sort of little bug or virus or

59
00:03:18,069 --> 00:03:16,250
I don't know what I've got I could try

60
00:03:19,750 --> 00:03:18,079
and many things i could try lots of bed

61
00:03:22,330 --> 00:03:19,760
rest and water and just taking it easy

62
00:03:25,239 --> 00:03:22,340
or i could try oh well I don't know say

63
00:03:29,020 --> 00:03:25,249

maybe some magnetic therapy to help me

64

00:03:30,940 --> 00:03:29,030

beat my ills but you know what I know a

65

00:03:32,979 --> 00:03:30,950

certain lady who would probably advised

66

00:03:34,509 --> 00:03:32,989

me not to do it and I'm very pleased and

67

00:03:37,149 --> 00:03:34,519

excited to have on the line all the way

68

00:03:40,479 --> 00:03:37,159

from sunny Queensland Loretta Marin

69

00:03:42,670 --> 00:03:40,489

hello hello how are you oh yeah good

70

00:03:46,360 --> 00:03:42,680

idea not too good but you know what I'm

71

00:03:49,929 --> 00:03:46,370

so pleased to talk with you because I as

72

00:03:51,909 --> 00:03:49,939

the world knows now as of a Australia

73

00:03:54,250 --> 00:03:51,919

date you've been awarded one of our

74

00:03:58,000 --> 00:03:54,260

country's highest awards which is the

75

00:04:00,069 --> 00:03:58,010

order of australia congratulations thank

76

00:04:01,990 --> 00:04:00,079

you I guess you're just one of the

77

00:04:05,110 --> 00:04:02,000

people congratulating me I'm just so

78

00:04:07,449 --> 00:04:05,120

proud to have received this award but

79

00:04:09,969 --> 00:04:07,459

what I'm getting is congratulations from

80

00:04:11,770 --> 00:04:09,979

like Nobel laureate in a professor barry

81

00:04:14,379 --> 00:04:11,780

marshall you know the man who worked out

82

00:04:16,270 --> 00:04:14,389

what cause ulcers but the CEO of the

83

00:04:18,310 --> 00:04:16,280

cancer council that's the 50 and over

84

00:04:20,620 --> 00:04:18,320

I've got the doctors who treated my

85

00:04:22,589 --> 00:04:20,630

cancer and got family friends academic

86

00:04:24,719 --> 00:04:22,599

scientists all over the world and

87

00:04:26,499 --> 00:04:24,729

Australia as well lots of them

88

00:04:29,860 --> 00:04:26,509

congratulating me I'm getting a lot of

89

00:04:32,260 --> 00:04:29,870

emails it's just um it's wonderful yes

90

00:04:35,080 --> 00:04:32,270

well I hope it was a wonderful surprise

91

00:04:36,909 --> 00:04:35,090

when you found out well when I first got

92

00:04:39,129 --> 00:04:36,919

the letter I read the first two lines

93

00:04:41,230 --> 00:04:39,139

and I swear the rest got jumbled I just

94

00:04:43,600 --> 00:04:41,240

couldn't read on and I had to hand it

95

00:04:45,310 --> 00:04:43,610

over to my husband say what does it say

96

00:04:47,260 --> 00:04:45,320

said you've got an order of australia

97

00:04:49,510 --> 00:04:47,270

medals and I said he you sure cuz I

98

00:04:51,850 --> 00:04:49,520

can't read it the next dance at their

99

00:04:54,279 --> 00:04:51,860

one word at a time and I thought where

100

00:04:57,189 --> 00:04:54,289

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

101
00:04:58,390 --> 00:04:57,199
and then you have to keep quiet no sep

102
00:05:00,279 --> 00:04:58,400
tember so I've had to keep my lips

103
00:05:04,089 --> 00:05:00,289
buttoned Simpsons a lot more to the

104
00:05:06,129 --> 00:05:04,099
process in that but in effect that I

105
00:05:07,480 --> 00:05:06,139
knew then so I thought well I can't

106
00:05:10,600 --> 00:05:07,490
celebrate

107
00:05:12,040 --> 00:05:10,610
anyone until Australia Day but i can

108
00:05:14,950 --> 00:05:12,050
guarantee there's been a few cooks

109
00:05:18,219 --> 00:05:14,960
champagne corks flying and the party

110
00:05:20,200 --> 00:05:18,229
isn't over yet you you are absolutely

111
00:05:22,059 --> 00:05:20,210
right in fact the skeptics here in

112
00:05:24,040 --> 00:05:22,069
Sydney will certainly be having a glass

113
00:05:26,320 --> 00:05:24,050

of champagne in your honor because we

114

00:05:28,450 --> 00:05:26,330

really think of you as one of our own

115

00:05:30,400 --> 00:05:28,460

you've been skeptic of the year on your

116

00:05:32,529 --> 00:05:30,410

own merits twice and as part of the

117

00:05:34,900 --> 00:05:32,539

Friends of science and medicine yet

118

00:05:37,600 --> 00:05:34,910

again which is a feat nobody else has

119

00:05:38,950 --> 00:05:37,610

even come close to matching but it all

120

00:05:41,589 --> 00:05:38,960

really started with you in your

121

00:05:43,149 --> 00:05:41,599

association with the skeptics over ten

122

00:05:46,089 --> 00:05:43,159

years ago when you are looking into

123

00:05:48,999 --> 00:05:46,099

magnetic therapy well that's right i had

124

00:05:51,790 --> 00:05:49,009

seen it advertised on the television so

125

00:05:54,100 --> 00:05:51,800

many times and a good friend of mine had

126
00:05:55,390 --> 00:05:54,110
bought one and he was an electrician and

127
00:05:57,270 --> 00:05:55,400
i had a bit of a go at him and I thought

128
00:05:59,680 --> 00:05:57,280
I'm no better than the alternative

129
00:06:02,050 --> 00:05:59,690
therapists unless I proved to him that

130
00:06:04,390 --> 00:06:02,060
they don't work so that was a challenge

131
00:06:05,680 --> 00:06:04,400
I thought how can I do that so you

132
00:06:09,279 --> 00:06:05,690
looked around Australian who could I

133
00:06:12,070 --> 00:06:09,289
talk to you and the thought will contact

134
00:06:14,050 --> 00:06:12,080
the skeptics whoever they are and I got

135
00:06:15,700 --> 00:06:14,060
hold of President the past president

136
00:06:18,670 --> 00:06:15,710
barry williams and he couldn't have been

137
00:06:20,589 --> 00:06:18,680
more helpful now what that did for me is

138
00:06:23,110 --> 00:06:20,599

make me realize that if i needed any

139

00:06:25,749 --> 00:06:23,120

help and advice the phone was there i

140

00:06:27,909 --> 00:06:25,759

could just pick it up and ring and and

141

00:06:31,060 --> 00:06:27,919

to be honest and you guys haven't got

142

00:06:33,490 --> 00:06:31,070

rid of message no no no we're very

143

00:06:35,050 --> 00:06:33,500

pleased that you're still there well yes

144

00:06:36,580 --> 00:06:35,060

and you've spoken at many Australian

145

00:06:38,290 --> 00:06:36,590

skeptics convention and you're a great

146

00:06:40,059 --> 00:06:38,300

speaker and you've even spoken in New

147

00:06:42,279 --> 00:06:40,069

Zealand I see oh yeah they're a

148

00:06:44,260 --> 00:06:42,289

wonderful group over there and they have

149

00:06:45,969 --> 00:06:44,270

really made me feel welcome as well it's

150

00:06:48,189 --> 00:06:45,979

the second time I've spoken there and

151
00:06:50,709 --> 00:06:48,199
they're really not that far away when

152
00:06:52,270 --> 00:06:50,719
you think about it and so that it's a

153
00:06:53,860 --> 00:06:52,280
good opportunity to get the message

154
00:06:55,719 --> 00:06:53,870
across and show them what we're doing in

155
00:06:58,270 --> 00:06:55,729
there in our country because they've got

156
00:07:00,040 --> 00:06:58,280
serious problems there as well and I we

157
00:07:02,529 --> 00:07:00,050
do need the skeptics around the world do

158
00:07:04,629 --> 00:07:02,539
need to you know look after each other

159
00:07:08,830 --> 00:07:04,639
and share what we know what we can do

160
00:07:11,529 --> 00:07:08,840
now you're famous of course maybe not so

161
00:07:13,270 --> 00:07:11,539
much now but in the past you you had the

162
00:07:15,519 --> 00:07:13,280
moniker of the jellybean lady and I

163
00:07:17,230 --> 00:07:15,529

there's a wonderful picture of you lying

164

00:07:19,300 --> 00:07:17,240

down on a bed of jelly beans with a

165

00:07:19,610 --> 00:07:19,310

jelly bean wrapped around your head what

166

00:07:24,050 --> 00:07:19,620

was

167

00:07:26,750 --> 00:07:24,060

because of the magnetic therapy right

168

00:07:28,189 --> 00:07:26,760

that had been my my my one thing that

169

00:07:31,219 --> 00:07:28,199

was really annoying me and that was

170

00:07:32,900 --> 00:07:31,229

pre-cancer say i put things down when i

171

00:07:35,930 --> 00:07:32,910

got the cancer because you know that

172

00:07:37,790 --> 00:07:35,940

takes over your life and but then i came

173

00:07:39,439 --> 00:07:37,800

back and i realized after I've been

174

00:07:41,480 --> 00:07:39,449

diagnosed that cancer patients were

175

00:07:43,850 --> 00:07:41,490

being targeted and I thought somebody

176

00:07:46,400 --> 00:07:43,860

should do something about this and I

177

00:07:49,480 --> 00:07:46,410

thought well it may as well be me and so

178

00:07:51,110 --> 00:07:49,490

I went to write a little brochure on

179

00:07:53,360 --> 00:07:51,120

complementary and alternative medicine

180

00:07:56,990 --> 00:07:53,370

and I thought and other things on how to

181

00:07:58,129 --> 00:07:57,000

get good advice on everything and the

182

00:07:59,719 --> 00:07:58,139

complementary alternative medicine

183

00:08:02,210 --> 00:07:59,729

section I thought I know nothing about

184

00:08:05,770 --> 00:08:02,220

this well I did two things one is i

185

00:08:09,020 --> 00:08:05,780

bought the skeptics DVD of all your

186

00:08:10,580 --> 00:08:09,030

articles for the last 20 years i printed

187

00:08:12,860 --> 00:08:10,590

out everything on complementary

188

00:08:15,290 --> 00:08:12,870

alternative medicine most of it was

189

00:08:19,040 --> 00:08:15,300

written by dr. richard gordon right yes

190

00:08:21,140 --> 00:08:19,050

yes and a couple of days later I pretty

191

00:08:22,370 --> 00:08:21,150

well had a good handle on it because one

192

00:08:24,830 --> 00:08:22,380

thing about alternative method it

193

00:08:27,080 --> 00:08:24,840

doesn't change they have new therapies

194

00:08:29,089 --> 00:08:27,090

created every couple of weeks but the

195

00:08:31,219 --> 00:08:29,099

basics are the same so first of all I

196

00:08:33,709 --> 00:08:31,229

got my education there and then I went

197

00:08:36,170 --> 00:08:33,719

to the adverse medicines events hotline

198

00:08:39,050 --> 00:08:36,180

and I rang them up and I said I need

199

00:08:41,209 --> 00:08:39,060

help with understanding the risks and

200

00:08:42,560 --> 00:08:41,219

benefits of complementing all medicines

201
00:08:44,960 --> 00:08:42,570
in particular because people are eating

202
00:08:48,680 --> 00:08:44,970
them and a woman by the name of

203
00:08:49,880 --> 00:08:48,690
Geraldine Moses out to the phone and she

204
00:08:52,100 --> 00:08:49,890
said well what do you know about

205
00:08:54,890 --> 00:08:52,110
complementary medicines and I said

206
00:08:57,290 --> 00:08:54,900
nothing I go over everybody to the

207
00:08:59,449 --> 00:08:57,300
skeptics dictionary and she couldn't

208
00:09:01,970 --> 00:08:59,459
have been more helpful she's just one

209
00:09:04,280 --> 00:09:01,980
but she still is helping and I think

210
00:09:07,250 --> 00:09:04,290
she's spoken at a few conferences so

211
00:09:08,840 --> 00:09:07,260
that's that's where it started with with

212
00:09:11,329 --> 00:09:08,850
that and the skeptics and the people

213
00:09:12,949 --> 00:09:11,339

that have helped me yes our Geraldine

214

00:09:15,740 --> 00:09:12,959

merces a i had the pleasure of meeting

215

00:09:20,000 --> 00:09:15,750

her once or twice I think in Brisbane

216

00:09:22,699 --> 00:09:20,010

around about the year 2001 when or is it

217

00:09:24,949 --> 00:09:22,709

2002 when the great skeptic CD was

218

00:09:28,520 --> 00:09:24,959

launched the CD you're referring to

219

00:09:31,699 --> 00:09:28,530

interesting it's things have progressed

220

00:09:32,910 --> 00:09:31,709

so so much now in computer terms that

221

00:09:34,650 --> 00:09:32,920

that's sort of a little bit

222

00:09:36,750 --> 00:09:34,660

leton all the back issues of the

223

00:09:38,519 --> 00:09:36,760

skeptic magazine are now at the website

224

00:09:40,769 --> 00:09:38,529

which is nice and handy for everybody

225

00:09:42,629 --> 00:09:40,779

but personally I'm so pleased that

226

00:09:45,030 --> 00:09:42,639

you've got good use out of that CD

227

00:09:47,100 --> 00:09:45,040

because many years ago I was the one who

228

00:09:50,550 --> 00:09:47,110

sat down and put that all together so I

229

00:09:52,230 --> 00:09:50,560

get a little a warm glow Loretta knowing

230

00:09:54,480 --> 00:09:52,240

that I've helped you well the one thing

231

00:09:56,519 --> 00:09:54,490

is you actually about the magnetic

232

00:09:58,680 --> 00:09:56,529

business alright with Geraldine asked me

233

00:10:00,150 --> 00:09:58,690

well what was my you know area of

234

00:10:02,730 --> 00:10:00,160

interest to know said magnetic therapy

235

00:10:03,870 --> 00:10:02,740

so she then Dodd me into channel mind

236

00:10:05,970 --> 00:10:03,880

she said would you like to go on

237

00:10:08,069 --> 00:10:05,980

television channel nine to talk about

238

00:10:10,050 --> 00:10:08,079

magnetic therapy and I of course I said

239

00:10:13,530 --> 00:10:10,060

yes and then of course I hung up and I

240

00:10:16,410 --> 00:10:13,540

thought I don't look like a scientist ok

241

00:10:18,120 --> 00:10:16,420

oh and in line with the skeptics which

242

00:10:20,730 --> 00:10:18,130

is what the skeptics love if they love

243

00:10:22,980 --> 00:10:20,740

to have a good life right yeah what the

244

00:10:24,810 --> 00:10:22,990

mickey out of people so i decided i

245

00:10:27,600 --> 00:10:24,820

copied her notes from the local natural

246

00:10:29,670 --> 00:10:27,610

path which fed you know that the nature

247

00:10:31,500 --> 00:10:29,680

pathogen blah blah no Foreman is it but

248

00:10:34,139 --> 00:10:31,510

I made it the jellybeans lady is in I

249

00:10:36,990 --> 00:10:34,149

did a whole brochure abajo stand on that

250

00:10:39,210 --> 00:10:37,000

put it out front of the house I then put

251
00:10:41,579 --> 00:10:39,220
myself on i bought a jellybean apron

252
00:10:44,370 --> 00:10:41,589
from you know from a child store put the

253
00:10:46,769 --> 00:10:44,380
jelly beans on my head earrings jewelry

254
00:10:48,720 --> 00:10:46,779
set up a whole display of jelly bean

255
00:10:50,730 --> 00:10:48,730
therapy you know acupressure bracelets

256
00:10:53,460 --> 00:10:50,740
which was jelly beans back in a ribbon

257
00:10:55,829 --> 00:10:53,470
and actually printed up actually detox

258
00:10:57,540 --> 00:10:55,839
patches which is goes with the jelly

259
00:11:00,720 --> 00:10:57,550
bean in and then the pain relief jewelry

260
00:11:03,180 --> 00:11:00,730
and then i had even verbal remedy herbal

261
00:11:05,699 --> 00:11:03,190
tea which was jelly bean stuck on a

262
00:11:07,980 --> 00:11:05,709
kebab stick and channel 9 turned up and

263
00:11:09,420 --> 00:11:07,990

they took one look at me and they said

264

00:11:11,880 --> 00:11:09,430

watch his story and i could see they

265

00:11:13,920 --> 00:11:11,890

were looked a bit pale and I had my i

266

00:11:16,199 --> 00:11:13,930

bought a meter that measures magnetism

267

00:11:17,850 --> 00:11:16,209

oh yeah and I had a little magnetic

268

00:11:20,280 --> 00:11:17,860

underlay and a little jelly bean

269

00:11:23,100 --> 00:11:20,290

underlay all covered up in sheepskin my

270

00:11:24,780 --> 00:11:23,110

said is the meter this out works which

271

00:11:26,130 --> 00:11:24,790

one's got the magnets and which ones got

272

00:11:28,710 --> 00:11:26,140

the dilly beans and they said it reads

273

00:11:31,650 --> 00:11:28,720

zero and I said yes I said you just get

274

00:11:33,750 --> 00:11:31,660

a tiny distance you know if listen a

275

00:11:36,990 --> 00:11:33,760

centimeter above a magnet there's no

276

00:11:39,660 --> 00:11:37,000

field so what I say that people is grab

277

00:11:41,189 --> 00:11:39,670

a fridge magnet and try it and of course

278

00:11:43,889 --> 00:11:41,199

you're nothing can see if it works for

279

00:11:46,350 --> 00:11:43,899

you and and they just loved it you know

280

00:11:49,560 --> 00:11:46,360

and that was the start of me

281

00:11:52,110 --> 00:11:49,570

being the jellybean lady and that was

282

00:11:55,380 --> 00:11:52,120

also got me into new idea magazine as

283

00:11:57,780 --> 00:11:55,390

the candy Crusader not me on 24 bc radio

284

00:12:00,600 --> 00:11:57,790

for over a year just people love it when

285

00:12:03,180 --> 00:12:00,610

you prepared to put your head out there

286

00:12:05,699 --> 00:12:03,190

sis might get whacked a few times but

287

00:12:09,180 --> 00:12:05,709

then they remembered yours even on

288

00:12:11,790 --> 00:12:09,190

Ingrid tool show and your health show in

289

00:12:13,949 --> 00:12:11,800

Brisbane and I turned up and I had all

290

00:12:16,319 --> 00:12:13,959

this pom-pom stuck on my shirt I mean my

291

00:12:18,269 --> 00:12:16,329

idea of sewing is with glue so I had

292

00:12:20,250 --> 00:12:18,279

these little brightly things and I and I

293

00:12:22,019 --> 00:12:20,260

had the outfit on and she said you're

294

00:12:23,970 --> 00:12:22,029

great for television and I got a gig on

295

00:12:25,500 --> 00:12:23,980

there as well I thought if I'd look like

296

00:12:29,400 --> 00:12:25,510

a scientist you know would have been

297

00:12:31,139 --> 00:12:29,410

unemployed very quickly it's been a lot

298

00:12:32,910 --> 00:12:31,149

of fun and that's better with the magnet

299

00:12:35,610 --> 00:12:32,920

well it's interesting because you know

300

00:12:38,370 --> 00:12:35,620

when I think back to roughly ten years

301
00:12:41,090 --> 00:12:38,380
ago or around that era I remember seeing

302
00:12:43,530 --> 00:12:41,100
on advertorial televisions and magazines

303
00:12:45,780 --> 00:12:43,540
magnetic underlays and magnetic therapy

304
00:12:47,550 --> 00:12:45,790
and magnetic this and that it was it was

305
00:12:49,650 --> 00:12:47,560
a fan of the time it was very popular

306
00:12:52,860 --> 00:12:49,660
but you don't see it anymore well

307
00:12:54,420 --> 00:12:52,870
scarcely ever so I think that's you

308
00:12:56,610 --> 00:12:54,430
don't see it at all that shouldn't be

309
00:12:58,230 --> 00:12:56,620
there mmm but you will see them you know

310
00:12:59,910 --> 00:12:58,240
spec floor-to-ceiling at your local

311
00:13:01,680 --> 00:12:59,920
pharmacy particularly if they're

312
00:13:04,230 --> 00:13:01,690
anywhere near a retirement village so

313
00:13:05,939 --> 00:13:04,240

the school issue there and because their

314

00:13:07,829 --> 00:13:05,949

labeling is atrocious on and it still

315

00:13:10,889 --> 00:13:07,839

makes the claims on the labeling but

316

00:13:12,540 --> 00:13:10,899

what you and I can do as consumers is

317

00:13:14,670 --> 00:13:12,550

try to get rid of the advertising this

318

00:13:16,680 --> 00:13:14,680

and pretty strong advertising lower

319

00:13:18,780 --> 00:13:16,690

their best well it's not to fit yeah I

320

00:13:20,370 --> 00:13:18,790

hope it will encourage my clio am

321

00:13:21,780 --> 00:13:20,380

there's a lot of people have turned

322

00:13:24,569 --> 00:13:21,790

their backs on evidence-based medicine

323

00:13:25,769 --> 00:13:24,579

but I mean we owe so much to researchers

324

00:13:28,829 --> 00:13:25,779

and doctors I mean there's a dramatic

325

00:13:31,259 --> 00:13:28,839

improvement in survival rates for cancer

326

00:13:34,350 --> 00:13:31,269

I think this month be declared India

327

00:13:35,730 --> 00:13:34,360

polio-free yes new the natural science

328

00:13:38,280 --> 00:13:35,740

and evidence based medicine it's

329

00:13:41,250 --> 00:13:38,290

terrific yeah absolutely no magnetic

330

00:13:43,829 --> 00:13:41,260

therapy or homeopathy or or witchcraft

331

00:13:46,740 --> 00:13:43,839

involved that's all good old good old

332

00:13:49,530 --> 00:13:46,750

science-based medicine at work doing

333

00:13:50,579 --> 00:13:49,540

what it what it does best and it's

334

00:13:52,170 --> 00:13:50,589

interesting you should mention the

335

00:13:53,730 --> 00:13:52,180

pharmacies because Australian skeptics

336

00:13:57,240 --> 00:13:53,740

for a long time they've had a big issue

337

00:13:59,360 --> 00:13:57,250

with pharmacies selling no end of

338

00:14:01,670 --> 00:13:59,370

nonsense and

339

00:14:04,490 --> 00:14:01,680

too fat you can go to my local pharmacy

340

00:14:07,550 --> 00:14:04,500

and you get 15 minutes free iridology oh

341

00:14:09,440 --> 00:14:07,560

lucky you yes that's right you know in

342

00:14:11,480 --> 00:14:09,450

order to diagnose me with health

343

00:14:13,610 --> 00:14:11,490

conditions and miss the obvious ones and

344

00:14:14,870 --> 00:14:13,620

as it just isn't right and that's their

345

00:14:17,180 --> 00:14:14,880

way of getting rounder and they're being

346

00:14:18,860 --> 00:14:17,190

told to clear their shelves the money's

347

00:14:21,079 --> 00:14:18,870

in all the complementary medicines I

348

00:14:23,360 --> 00:14:21,089

mean we care or complementary

349

00:14:25,310 --> 00:14:23,370

alternative medicine if a 4 billion

350

00:14:27,500 --> 00:14:25,320

dollar industry and most of it realizing

351

00:14:30,110 --> 00:14:27,510

the placebo effect and some of its quite

352

00:14:32,120 --> 00:14:30,120

dangerous and it often targets you know

353

00:14:35,390 --> 00:14:32,130

the most vulnerable people that cancer

354

00:14:37,970 --> 00:14:35,400

patients seniors and increasingly babies

355

00:14:40,370 --> 00:14:37,980

and children you know and I hope that my

356

00:14:43,010 --> 00:14:40,380

award will open more doors for me to

357

00:14:44,540 --> 00:14:43,020

challenge the poor regulation and make

358

00:14:47,000 --> 00:14:44,550

you know make me more difficult to

359

00:14:50,960 --> 00:14:47,010

ignore oh I'm sure it absolutely will

360

00:14:53,000 --> 00:14:50,970

now you are in very fine company indeed

361

00:14:54,920 --> 00:14:53,010

with the Friends of science and medicine

362

00:14:56,360 --> 00:14:54,930

can you tell our listeners a little bit

363

00:14:58,640 --> 00:14:56,370

about that and how that's going oh

364

00:15:01,280 --> 00:14:58,650

that's going really well and I do have a

365

00:15:04,820 --> 00:15:01,290

lot to thank the skeptics for as well we

366

00:15:06,800 --> 00:15:04,830

launched in december 2011 so we're just

367

00:15:09,350 --> 00:15:06,810

over two years old we have over a

368

00:15:11,360 --> 00:15:09,360

thousand supporters now including Nobel

369

00:15:14,240 --> 00:15:11,370

Prize winners a couple of Australian of

370

00:15:17,810 --> 00:15:14,250

these I think about three and over 60

371

00:15:21,650 --> 00:15:17,820

recipients of medals like myself all

372

00:15:23,420 --> 00:15:21,660

over 61 now and when we started of

373

00:15:26,300 --> 00:15:23,430

course for it was self funded so it

374

00:15:29,120 --> 00:15:26,310

meant that we all put 125 dollars in to

375

00:15:31,790 --> 00:15:29,130

pay for the postage and post office box

376

00:15:34,850 --> 00:15:31,800

and the skeptics willingly gave us a

377

00:15:36,530 --> 00:15:34,860

grant to get us off the ground we're

378

00:15:38,990 --> 00:15:36,540

trying to promote a message of good

379

00:15:40,490 --> 00:15:39,000

science medicine and that's a very

380

00:15:42,800 --> 00:15:40,500

important message because of the

381

00:15:44,630 --> 00:15:42,810

industry was fighting so the support

382

00:15:47,540 --> 00:15:44,640

would continue to have from the skeptics

383

00:15:49,430 --> 00:15:47,550

is regularly appreciated yes and we

384

00:15:51,500 --> 00:15:49,440

think it's a wonderful thing that you're

385

00:15:53,360 --> 00:15:51,510

doing and indeed one of our own Joe

386

00:15:54,590 --> 00:15:53,370

Benna mu is is certainly involved with

387

00:15:56,630 --> 00:15:54,600

the Friends of science and medicine and

388

00:15:58,850 --> 00:15:56,640

people you miss Johanna we happy family

389

00:16:01,790 --> 00:15:58,860

just a little treasure to use your

390

00:16:03,829 --> 00:16:01,800

treasure a wonderful woman end but

391

00:16:05,769 --> 00:16:03,839

listeners can find out more about the

392

00:16:09,500 --> 00:16:05,779

Friends of science and medicine at

393

00:16:11,480 --> 00:16:09,510

science in medicine or gay you and

394

00:16:12,500 --> 00:16:11,490

Loretta that's certainly becoming under

395

00:16:15,260 --> 00:16:12,510

a lot of tax

396

00:16:16,670 --> 00:16:15,270

attack from certain quarters well it

397

00:16:18,890 --> 00:16:16,680

certainly is and that actually shows

398

00:16:20,420 --> 00:16:18,900

that we're being you know making the

399

00:16:24,340 --> 00:16:20,430

difference and that's what we're trying

400

00:16:27,140 --> 00:16:24,350

to do is challenge this industry and

401
00:16:29,090 --> 00:16:27,150
will they perhaps they're being feeling

402
00:16:32,120 --> 00:16:29,100
a bit threatened but they have made very

403
00:16:34,190 --> 00:16:32,130
well-funded I mean some of them set up

404
00:16:36,650 --> 00:16:34,200
offices in Canberra so they can lobby

405
00:16:38,060 --> 00:16:36,660
the government and that's very difficult

406
00:16:39,560 --> 00:16:38,070
for us to say to the government there's

407
00:16:42,110 --> 00:16:39,570
a whole industry there's a lot of people

408
00:16:43,850 --> 00:16:42,120
employed it's project projected to be

409
00:16:46,820 --> 00:16:43,860
one of the biggest growth employment

410
00:16:49,490 --> 00:16:46,830
industries for this year yeah and say

411
00:16:52,070 --> 00:16:49,500
most of it is just for SIBO all of it

412
00:16:54,380 --> 00:16:52,080
yeah yeah and that's very sad i will

413
00:16:57,770 --> 00:16:54,390

mention that this week is quite special

414

00:17:01,520 --> 00:16:57,780

for me not just for my reward but i

415

00:17:04,430 --> 00:17:01,530

celebrate 10 years exactly to my last

416

00:17:06,290 --> 00:17:04,440

week of treatment for radiotherapy so

417

00:17:08,600 --> 00:17:06,300

it's been quite a roller coaster ride

418

00:17:11,480 --> 00:17:08,610

since then it's been quite a 10 years

419

00:17:13,640 --> 00:17:11,490

yes yeah so just you know second

420

00:17:15,740 --> 00:17:13,650

effective of februari was my last

421

00:17:18,110 --> 00:17:15,750

treatment and that's just in a few days

422

00:17:21,410 --> 00:17:18,120

from there so I've had a most amazing

423

00:17:23,720 --> 00:17:21,420

decade that's the short and the skeptics

424

00:17:25,400 --> 00:17:23,730

have been right in there because I hope

425

00:17:26,900 --> 00:17:25,410

people listen to this we'll have a look

426
00:17:29,030 --> 00:17:26,910
at the Friends of science and medicine

427
00:17:31,310 --> 00:17:29,040
website have a look at our aims and

428
00:17:33,200 --> 00:17:31,320
commitments and we'd love you to join us

429
00:17:36,770 --> 00:17:33,210
all you have to do is say that you agree

430
00:17:39,500 --> 00:17:36,780
with them and welcome on board isn't it

431
00:17:41,600 --> 00:17:39,510
interesting that there you are one day

432
00:17:42,890 --> 00:17:41,610
getting this diagnosis of cancer and

433
00:17:45,410 --> 00:17:42,900
everybody knows it's a life-changing

434
00:17:47,480 --> 00:17:45,420
thing for for anybody who gets this

435
00:17:49,460 --> 00:17:47,490
diagnosis but how could you possibly

436
00:17:52,970 --> 00:17:49,470
imagine it would change your life in

437
00:17:54,380 --> 00:17:52,980
such a an unexpected way and the top it

438
00:17:56,150 --> 00:17:54,390

all off you receive an order of

439

00:17:58,160 --> 00:17:56,160

australia that's quite a story attract

440

00:18:00,110 --> 00:17:58,170

if someone said to me already you're the

441

00:18:03,050 --> 00:18:00,120

only one that can make lemonade out of a

442

00:18:05,000 --> 00:18:03,060

lemon that's a good way of putting it

443

00:18:07,310 --> 00:18:05,010

but it has been good looking back at the

444

00:18:08,900 --> 00:18:07,320

last decade of all the people that have

445

00:18:11,060 --> 00:18:08,910

helped me along the way just little

446

00:18:12,380 --> 00:18:11,070

things that they've done on big things

447

00:18:14,720 --> 00:18:12,390

that they've done as well I mean my

448

00:18:16,670 --> 00:18:14,730

neighbor that silkscreen my t-shirts

449

00:18:18,170 --> 00:18:16,680

with the jellybean lady on for the

450

00:18:20,360 --> 00:18:18,180

conference the first conference I went

451
00:18:22,190 --> 00:18:20,370
to with the skeptics you know and and

452
00:18:23,900 --> 00:18:22,200
the advice I've been given the support

453
00:18:26,390 --> 00:18:23,910
I've been given it's just been

454
00:18:28,670 --> 00:18:26,400
tremendous and the opportunity to skip

455
00:18:31,550 --> 00:18:28,680
given me to go and talk about my work

456
00:18:34,060 --> 00:18:31,560
and even more recently about the Friends

457
00:18:36,380 --> 00:18:34,070
of science and medicine it all matters

458
00:18:38,330 --> 00:18:36,390
absolutely absolutely I couldn't agree

459
00:18:42,410 --> 00:18:38,340
with you more Loretta it matters it's

460
00:18:44,270 --> 00:18:42,420
it's it's a never-ending battle as we

461
00:18:46,070 --> 00:18:44,280
know it's a never-ending battle but I

462
00:18:50,080 --> 00:18:46,080
think you should rightly now consider

463
00:18:52,670 --> 00:18:50,090

yourself one of the generals Thank You

464

00:18:56,480 --> 00:18:52,680

Loretta melon always we'd love to know

465

00:19:21,050 --> 00:18:56,490

you as the jelly bean lady Oh am a

466

00:19:22,790 --> 00:19:21,060

delight to talk with you okay take need

467

00:19:24,170 --> 00:19:22,800

some skeptic ll goodness that you can

468

00:19:26,300 --> 00:19:24,180

handle to someone who doesn't listen to

469

00:19:29,000 --> 00:19:26,310

podcasts or maybe you just need a good

470

00:19:31,040 --> 00:19:29,010

book of short skeptical snippets to put

471

00:19:34,220 --> 00:19:31,050

in your guest bathroom at home or on the

472

00:19:36,050 --> 00:19:34,230

lobby table at work it's true we live in

473

00:19:38,450 --> 00:19:36,060

a modern Dark Age faith and

474

00:19:40,700 --> 00:19:38,460

pseudoscience is rampant and belief in

475

00:19:43,280 --> 00:19:40,710

the supernatural permeates society at

476

00:19:45,860 --> 00:19:43,290

every level critical thinking is key to

477

00:19:48,290 --> 00:19:45,870

understanding what is truly useful and

478

00:19:50,960 --> 00:19:48,300

what nearly distracts from progress and

479

00:19:52,850 --> 00:19:50,970

development this book gives you the

480

00:19:56,120 --> 00:19:52,860

tools to sort the solid from the silly

481

00:19:57,890 --> 00:19:56,130

and answer such questions as do military

482

00:20:02,420 --> 00:19:57,900

dolphins actually attack

483

00:20:04,490 --> 00:20:02,430

kill divers who was Jack the Ripper can

484

00:20:07,760 --> 00:20:04,500

zombie powder actually turn you into a

485

00:20:11,660 --> 00:20:07,770

mindless slave was an amputee

486

00:20:14,650 --> 00:20:11,670

miraculously healed in the 1600s what is

487

00:20:17,750 --> 00:20:14,660

truly known about Amelia Earhart's fate

488

00:20:21,040 --> 00:20:17,760

does scientific evidence prove the

489

00:20:24,350 --> 00:20:21,050

existence of the Yeti skepp tied five

490

00:20:27,320 --> 00:20:24,360

massacres monsters and miracles by Brian

491

00:20:32,570 --> 00:20:27,330

Dunning get yours today from amazon or

492

00:20:40,549 --> 00:20:32,580

sceptile calm / books Sceptile massacres

493

00:20:45,779 --> 00:20:43,470

welcome to Weekend science from RI oz

494

00:20:48,029 --> 00:20:45,789

bringing you the science you need to

495

00:20:49,950 --> 00:20:48,039

know you may have heard about 3d

496

00:20:52,019 --> 00:20:49,960

printing the technology that allows you

497

00:20:54,450 --> 00:20:52,029

to make almost anything so long as you

498

00:20:56,310 --> 00:20:54,460

can designer on a computer but get ready

499

00:21:02,310 --> 00:20:56,320

today we are talking about the next big

500

00:21:05,039 --> 00:21:02,320

advance 4d printing 3d printing is

501
00:21:07,200 --> 00:21:05,049
pretty amazing as we said you can print

502
00:21:09,710 --> 00:21:07,210
out almost any shape you can think of as

503
00:21:12,629 --> 00:21:09,720
long as you can designer on a computer a

504
00:21:14,879 --> 00:21:12,639
printer prints our other metal plastic

505
00:21:17,310 --> 00:21:14,889
or many other substances into

506
00:21:20,549 --> 00:21:17,320
three-dimensional shapes by laying layer

507
00:21:22,649 --> 00:21:20,559
upon layer however one limitation is

508
00:21:24,840 --> 00:21:22,659
that you still need to assemble 3d

509
00:21:27,269 --> 00:21:24,850
printed parts into a more complex

510
00:21:29,789 --> 00:21:27,279
structure what if we said the next big

511
00:21:32,070 --> 00:21:29,799
development called 4d printing was to

512
00:21:33,840 --> 00:21:32,080
create shapes that can actually assemble

513
00:21:35,820 --> 00:21:33,850

themselves into their final three

514

00:21:37,830 --> 00:21:35,830

dimensional structure that's what

515

00:21:40,139 --> 00:21:37,840

researchers are working on now to create

516

00:21:42,659 --> 00:21:40,149

principle materials and structures which

517

00:21:44,879 --> 00:21:42,669

when activated fold themselves into a

518

00:21:48,419 --> 00:21:44,889

predetermined shape this activation

519

00:21:52,529 --> 00:21:48,429

could be water electricity heat really

520

00:21:54,990 --> 00:21:52,539

anything these structures are made by

521

00:21:56,639 --> 00:21:55,000

combining plastic and smart memory

522

00:21:58,669 --> 00:21:56,649

material which can morph into different

523

00:22:00,720 --> 00:21:58,679

shapes one of the most obvious

524

00:22:03,090 --> 00:22:00,730

applications of this is to create

525

00:22:05,039 --> 00:22:03,100

structures which are flat or small so

526
00:22:06,990 --> 00:22:05,049
they can be shipped easily and then be

527
00:22:09,840 --> 00:22:07,000
activated into their functional shape

528
00:22:12,090 --> 00:22:09,850
once on location could this be the end

529
00:22:15,240 --> 00:22:12,100
of trying to assemble fiddly flat-pack

530
00:22:17,039 --> 00:22:15,250
furniture man I hope so objects could

531
00:22:18,330 --> 00:22:17,049
also be made which have a different

532
00:22:20,639 --> 00:22:18,340
structure in different conditions

533
00:22:23,129 --> 00:22:20,649
meaning one object could have several

534
00:22:25,350 --> 00:22:23,139
different uses structures could also

535
00:22:27,419 --> 00:22:25,360
react to their surroundings to change

536
00:22:30,779 --> 00:22:27,429
shape and optimize their effectiveness

537
00:22:34,590 --> 00:22:30,789
how cool is that and now here's four

538
00:22:37,330 --> 00:22:34,600

fast facts about 40 printing

539

00:22:40,270 --> 00:22:37,340

4d printing was revealed to the world in

540

00:22:43,000 --> 00:22:40,280

a TED talk by MIT researchers Skylar

541

00:22:44,890 --> 00:22:43,010

Tibbits we recommend checking it out the

542

00:22:46,840 --> 00:22:44,900

shapes that the structures convert into

543

00:22:49,750 --> 00:22:46,850

are determined during the design stage

544

00:22:52,150 --> 00:22:49,760

so every step of the conversion from one

545

00:22:53,890 --> 00:22:52,160

shape to the other is controllable one

546

00:22:56,050 --> 00:22:53,900

of the other interesting applications

547

00:22:58,420 --> 00:22:56,060

for this technology is medicine where

548

00:23:00,430 --> 00:22:58,430

molecules can react and transform into

549

00:23:02,860 --> 00:23:00,440

functional types when they reach a

550

00:23:04,600 --> 00:23:02,870

particular part of the body and one of

551
00:23:06,910 --> 00:23:04,610
the largest self-folding structures

552
00:23:09,010 --> 00:23:06,920
we've seen is this 50-foot long strand

553
00:23:11,620 --> 00:23:09,020
but this technology will be scaled up

554
00:23:13,990 --> 00:23:11,630
even further in the future one to find

555
00:23:20,680 --> 00:23:14,000
out more about 4d printing check out our

556
00:23:22,750 --> 00:23:20,690
website w WR i ASO GA you where we have

557
00:23:25,360 --> 00:23:22,760
some links you can also follow us on

558
00:23:27,520 --> 00:23:25,370
twitter at our oz and like us on

559
00:23:35,700 --> 00:23:27,530
facebook we'll see you right here next

560
00:23:40,590 --> 00:23:38,430
hi I'm Finn and I'm Rebecca and where

561
00:23:42,330 --> 00:23:40,600
the skipper cons skipper Collins is an

562
00:23:44,010 --> 00:23:42,340
Irish podcast by the Dublin skeptics

563
00:23:45,600 --> 00:23:44,020

society it takes a conversational

564

00:23:46,860 --> 00:23:45,610

reverent look at science news and

565

00:23:50,340 --> 00:23:46,870

skeptical topics for an Irish

566

00:24:02,909 --> 00:23:50,350

perspective you can find us at WWDC

567

00:24:07,789 --> 00:24:02,919

arrogance calm years may not spooky

568

00:24:12,660 --> 00:24:11,220

hey no no no I want to talk to an actual

569

00:24:14,700 --> 00:24:12,670

scientists here we've got someone who

570

00:24:16,230 --> 00:24:14,710

spent a lot more time at University than

571

00:24:18,090 --> 00:24:16,240

I did in fact I was only there for the

572

00:24:22,380 --> 00:24:18,100

day and what have you got your degree in

573

00:24:23,760 --> 00:24:22,390

I have a PhD in geography and you said

574

00:24:24,990 --> 00:24:23,770

you're working in the earth sciences we

575

00:24:26,280 --> 00:24:25,000

just moved over this way little bit

576

00:24:27,390 --> 00:24:26,290

because there's screaming children

577

00:24:30,690 --> 00:24:27,400

coming from the discovery center

578

00:24:32,580 --> 00:24:30,700

downstairs there and you with what do

579

00:24:34,530 --> 00:24:32,590

you think a lot of people are drawn to

580

00:24:38,400 --> 00:24:34,540

Earth Sciences or it's just something

581

00:24:41,280 --> 00:24:38,410

you fall into I think it's a naturally

582

00:24:43,200 --> 00:24:41,290

compelling field because being able to

583

00:24:45,770 --> 00:24:43,210

have the tools to describe our

584

00:24:47,760 --> 00:24:45,780

environment and our world around us is

585

00:24:49,770 --> 00:24:47,770

intrinsically important to all of us

586

00:24:52,080 --> 00:24:49,780

it's very exciting and what is the

587

00:24:54,419 --> 00:24:52,090

actual topic you're dealing with

588

00:24:56,460 --> 00:24:54,429

day-to-day at the moment so I use

589

00:24:58,620 --> 00:24:56,470

satellites that are orbiting around the

590

00:25:01,140 --> 00:24:58,630

earth to measure processes on the

591

00:25:03,570 --> 00:25:01,150

Earth's surface such as the quality of

592

00:25:07,320 --> 00:25:03,580

water and the quality of freshwater

593

00:25:09,000 --> 00:25:07,330

habitats and how many it in any given

594

00:25:10,350 --> 00:25:09,010

time would you work within a day how

595

00:25:13,590 --> 00:25:10,360

many satellites are you keeping an eye

596

00:25:15,690 --> 00:25:13,600

on that do this there are a couple of

597

00:25:19,740 --> 00:25:15,700

key satellites that mentioned that

598

00:25:22,049 --> 00:25:19,750

measure the range of the electromagnetic

599

00:25:25,320 --> 00:25:22,059

spectrum that we can use to measure

600

00:25:27,930 --> 00:25:25,330

water quality the Landsat 8 sensor was

601
00:25:30,150 --> 00:25:27,940
recently launched by NASA last year and

602
00:25:31,799 --> 00:25:30,160
that's been successfully orbiting and is

603
00:25:33,419 --> 00:25:31,809
bringing in a whole host of new

604
00:25:36,299 --> 00:25:33,429
information and everyone's very excited

605
00:25:37,590 --> 00:25:36,309
about analyzing that data understand

606
00:25:38,970 --> 00:25:37,600
that would be every once in a while

607
00:25:41,070 --> 00:25:38,980
something goes wrong in a satellite gets

608
00:25:42,360 --> 00:25:41,080
lost or it goes off on launch have you

609
00:25:43,890 --> 00:25:42,370
ever been involved in any one of those

610
00:25:46,799 --> 00:25:43,900
ones you're going on there goes all that

611
00:25:50,360 --> 00:25:46,809
work I was going to do unfortunately

612
00:25:52,890 --> 00:25:50,370
satellites have a life expectancy and

613
00:25:55,049 --> 00:25:52,900

usually they exceed them which is very

614

00:25:56,940 --> 00:25:55,059

good for the scientific community but

615

00:25:58,950 --> 00:25:56,950

when a satellite does go down and you

616

00:26:02,100 --> 00:25:58,960

lose that data stream it can be very

617

00:26:04,919 --> 00:26:02,110

impactful the Landsat sensor that I was

618

00:26:07,049 --> 00:26:04,929

telling you about earlier the series of

619

00:26:09,299 --> 00:26:07,059

those sensors have been in orbit longer

620

00:26:12,960 --> 00:26:09,309

than any other remote sensing sensor up

621

00:26:15,690 --> 00:26:12,970

there since the late 1970s so it

622

00:26:17,640 --> 00:26:15,700

provides the the longest long-term

623

00:26:19,290 --> 00:26:17,650

record of satellite observations that we

624

00:26:20,600 --> 00:26:19,300

have which is very important for

625

00:26:23,090 --> 00:26:20,610

quantifying

626
00:26:24,919 --> 00:26:23,100
global environmental change and tracking

627
00:26:27,860 --> 00:26:24,929
the environments response to climate

628
00:26:29,780 --> 00:26:27,870
change hello much longer they expected

629
00:26:30,980 --> 00:26:29,790
to be active for can you guarantee much

630
00:26:33,049 --> 00:26:30,990
in the future with it continuing its

631
00:26:35,030 --> 00:26:33,059
been there so long well there have

632
00:26:37,640 --> 00:26:35,040
actually been a number of Landsat

633
00:26:40,940 --> 00:26:37,650
sensors so the recent one is Landsat 8

634
00:26:44,299 --> 00:26:40,950
so Landsat 7 and landsat 5 were orbiting

635
00:26:47,150 --> 00:26:44,309
for about a decade before that and the

636
00:26:50,090 --> 00:26:47,160
Landsat 5 sensor was a real trooper and

637
00:26:52,549 --> 00:26:50,100
it finally failed last year and the

638
00:26:54,950 --> 00:26:52,559

Landsat 7 Center has a flaw that

639

00:26:57,500 --> 00:26:54,960
retrieves incomplete data so the

640

00:26:59,870 --> 00:26:57,510
community was very upset at having a

641

00:27:01,850 --> 00:26:59,880
disruption in one of the longest term

642

00:27:04,490 --> 00:27:01,860
environmental records that we have in

643

00:27:06,260 --> 00:27:04,500
the current era so when Landsat 8

644

00:27:09,230 --> 00:27:06,270
successfully made it into launch

645

00:27:11,539 --> 00:27:09,240
everybody was very happy so you click

646

00:27:13,430 --> 00:27:11,549
ting this huge big data set what is the

647

00:27:15,049 --> 00:27:13,440
big challenge for having like a huge

648

00:27:16,340 --> 00:27:15,059
amount of raw data like that with

649

00:27:17,750 --> 00:27:16,350
processing it and getting it together

650

00:27:21,590 --> 00:27:17,760
what was the big challenge on a day to

651
00:27:24,169 --> 00:27:21,600
day basis well Geoscience Australia here

652
00:27:26,750 --> 00:27:24,179
has just reprocessed all of the historic

653
00:27:29,330 --> 00:27:26,760
data from the Landsat sensor and it

654
00:27:31,460 --> 00:27:29,340
represents over a petabyte of data so as

655
00:27:34,850 --> 00:27:31,470
you can imagine the data volumes

656
00:27:36,380 --> 00:27:34,860
enormous USB stick it is an enormous USB

657
00:27:39,830 --> 00:27:36,390
stick that's called the National

658
00:27:41,510 --> 00:27:39,840
computing infrastructure that is just

659
00:27:43,610 --> 00:27:41,520
incredible and how much gets added to it

660
00:27:47,060 --> 00:27:43,620
each time you get a download dumb from

661
00:27:49,310 --> 00:27:47,070
the satellite well they Australia has a

662
00:27:50,860 --> 00:27:49,320
downlink for the Landsat sensor here in

663
00:27:52,720 --> 00:27:50,870

the continent so they're constantly

664

00:27:57,039 --> 00:27:52,730

communicating and

665

00:27:59,080 --> 00:27:57,049

that data so it's delivered to us pretty

666

00:28:01,299 --> 00:27:59,090

close to near real time which allows us

667

00:28:03,820 --> 00:28:01,309

to do quite a lot of interesting

668

00:28:06,460 --> 00:28:03,830

environmental science especially because

669

00:28:08,799 --> 00:28:06,470

we can exploit that that historic record

670

00:28:10,900 --> 00:28:08,809

which makes our understanding of process

671

00:28:13,570 --> 00:28:10,910

much more valuable than just an

672

00:28:15,159 --> 00:28:13,580

instantaneous measurements so as an

673

00:28:17,260 --> 00:28:15,169

actual science who has an actual

674

00:28:19,600 --> 00:28:17,270

scientists with an actual degree what

675

00:28:20,950 --> 00:28:19,610

they want to shoot a science get your

676
00:28:24,640 --> 00:28:20,960
goat the most what's the one that makes

677
00:28:26,470 --> 00:28:24,650
you most I ever I think the one that

678
00:28:28,990 --> 00:28:26,480
maybe hits closest to home for me as

679
00:28:31,090 --> 00:28:29,000
climate denial as someone who's actively

680
00:28:32,919 --> 00:28:31,100
researching the effects and the impacts

681
00:28:35,590 --> 00:28:32,929
of climate change and we have observed

682
00:28:37,570 --> 00:28:35,600
them it's very hard to have someone tell

683
00:28:41,260 --> 00:28:37,580
you that climate change isn't happening

684
00:28:42,789 --> 00:28:41,270
or it doesn't exist or it's not going to

685
00:28:44,440 --> 00:28:42,799
result in many changes to our

686
00:28:48,130 --> 00:28:44,450
environment have you been directly

687
00:28:52,090 --> 00:28:48,140
accused of fiddling the books yourself I

688
00:28:55,060 --> 00:28:52,100

have and my response to that is if I

689

00:28:58,150 --> 00:28:55,070

wanted to be rich and famous I went in

690

00:28:59,830 --> 00:28:58,160

to become a scientist yes yeah yeah look

691

00:29:02,289 --> 00:28:59,840

if there's some kind of payoff going on

692

00:29:04,900 --> 00:29:02,299

it wouldn't be from doing this no it

693

00:29:06,340 --> 00:29:04,910

certainly isn't I can tell you that and

694

00:29:07,840 --> 00:29:06,350

nobody looking forward to hear on the

695

00:29:09,430 --> 00:29:07,850

last afternoon in the conference on

696

00:29:11,919 --> 00:29:09,440

sunday afternoon any special talk you're

697

00:29:14,650 --> 00:29:11,929

looking forward to I'm very interested

698

00:29:17,230 --> 00:29:14,660

in the kind of wrap up discussions about

699

00:29:21,280 --> 00:29:17,240

where the skeptical community is going

700

00:29:23,110 --> 00:29:21,290

and I hope to see it maybe some greater

701
00:29:26,909 --> 00:29:23,120
outreach from The Skeptical community

702
00:29:29,860 --> 00:29:26,919
it's very easy to sit in a group and

703
00:29:32,530 --> 00:29:29,870
criticize conspiracy theorist but I

704
00:29:35,350 --> 00:29:32,540
think that we need to try and reach

705
00:29:37,480 --> 00:29:35,360
across that and bring in at least those

706
00:29:38,749 --> 00:29:37,490
people who are open to compelling

707
00:29:40,369 --> 00:29:38,759
argument

708
00:29:44,899 --> 00:29:40,379
I'll enjoy the rest of your conference

709
00:29:46,729 --> 00:29:44,909
thank you and I have yet to more agent

710
00:29:48,439 --> 00:29:46,739
Smith's here what is the other what's

711
00:29:51,199 --> 00:29:48,449
your middle name Agent Smith middle name

712
00:29:53,029 --> 00:29:51,209
is Corrin and you are great now you're

713
00:29:54,560 --> 00:29:53,039

both very snappily dressed here is you

714

00:29:56,689 --> 00:29:54,570

have been all weekend normally there's

715

00:29:58,459 --> 00:29:56,699

some sort of incident but since P semis

716

00:30:00,259 --> 00:29:58,469

isn't attending today we haven't

717

00:30:01,639 --> 00:30:00,269

actually got an incident yet are you

718

00:30:03,619 --> 00:30:01,649

planning on having one before we finish

719

00:30:05,779 --> 00:30:03,629

by Sanderson art we could probably

720

00:30:07,459 --> 00:30:05,789

manufacture something but we're hoping

721

00:30:08,989 --> 00:30:07,469

that nothing happens that sounds like

722

00:30:10,189 --> 00:30:08,999

you got a conspiracy in mind there now

723

00:30:12,769 --> 00:30:10,199

what about you is anything happened on

724

00:30:15,169 --> 00:30:12,779

your watch oh we can't really talk about

725

00:30:17,029 --> 00:30:15,179

what's happened no okay I guess you

726

00:30:18,349 --> 00:30:17,039

can't really well let's get straight

727

00:30:20,209 --> 00:30:18,359

into the controversy the fact that you

728

00:30:22,189 --> 00:30:20,219

can't see anything that's happened is

729

00:30:23,899 --> 00:30:22,199

indication of how well we've been good

730

00:30:26,509 --> 00:30:23,909

at making sure nothing's happened now I

731

00:30:28,129 --> 00:30:26,519

have been asking people about the trying

732

00:30:30,229 --> 00:30:28,139

to get a controversy going try to get an

733

00:30:32,449 --> 00:30:30,239

incident going by mentioning and asking

734

00:30:34,129 --> 00:30:32,459

people who is the unpopular doctor

735

00:30:35,329 --> 00:30:34,139

because everyone has their favorite

736

00:30:37,309 --> 00:30:35,339

doctor but who's the one you think is

737

00:30:38,930 --> 00:30:37,319

least popular now I must point out we

738

00:30:40,729 --> 00:30:38,940

aren't bagging the person or the actor

739

00:30:42,169 --> 00:30:40,739

it's just their work in doctor who we

740

00:30:43,819 --> 00:30:42,179

think isn't as good as some of the other

741

00:30:46,129 --> 00:30:43,829

ones have you got a particular feeling

742

00:30:49,189 --> 00:30:46,139

about this I'm completely Doctor Who

743

00:30:51,469 --> 00:30:49,199

agnostic well okay so does that mean you

744

00:30:52,879 --> 00:30:51,479

so when people say Star Trek or doctor

745

00:30:55,939 --> 00:30:52,889

who you just you just don't get involved

746

00:30:58,579 --> 00:30:55,949

at all pretty much pretty much I might

747

00:31:01,579 --> 00:30:58,589

as well say Christianity or Islam dilute

748

00:31:03,049 --> 00:31:01,589

it so so you'd be a buck rogers in the

749

00:31:04,939 --> 00:31:03,059

25th century kind of guy then is that

750

00:31:07,459 --> 00:31:04,949

what you are Oh buck rogers near you

751

00:31:09,019 --> 00:31:07,469

takin me back yeah and battlestar

752

00:31:11,209 --> 00:31:09,029

galactica at the first series the

753

00:31:13,309 --> 00:31:11,219

original look I have a bit of a thing

754

00:31:14,659 --> 00:31:13,319

for battlestar galactica 1980 that there

755

00:31:16,069 --> 00:31:14,669

was a third series that is not actually

756

00:31:18,139 --> 00:31:16,079

part of the can and I loved that that's

757

00:31:20,029 --> 00:31:18,149

when the Cylons fight bushfires and

758

00:31:21,529 --> 00:31:20,039

stuff and check that one out yeah all

759

00:31:23,419 --> 00:31:21,539

that they became socially conscious what

760

00:31:25,369 --> 00:31:23,429

about you and the doctor who issue I'm a

761

00:31:28,190 --> 00:31:25,379

recent convert to the Doctor Who so I'm

762

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

2005 series only okay

763

00:31:33,680 --> 00:31:30,299

and so that only gives me a small number

764

00:31:34,730 --> 00:31:33,690

of doctors to to not like and they're

765

00:31:36,649 --> 00:31:34,740

all pretty good but Christopher

766

00:31:39,710 --> 00:31:36,659

Eccleston's was met perhaps just a

767

00:31:41,240 --> 00:31:39,720

little wooden in his delivery sorry I a

768

00:31:43,250 --> 00:31:41,250

lot of people think of him because he

769

00:31:45,320 --> 00:31:43,260

was only in there for one year and a lot

770

00:31:46,580 --> 00:31:45,330

of people so I kind of liked him because

771

00:31:48,409 --> 00:31:46,590

he was a bit rough around the edges and

772

00:31:50,210 --> 00:31:48,419

seemed to like a bit of beef he had that

773

00:31:52,460 --> 00:31:50,220

sort of EastEnders touch to him mm-hmm

774

00:31:54,649 --> 00:31:52,470

and maybe that's part of it he doesn't

775

00:31:57,860 --> 00:31:54,659

seem like the doctors that sort of

776

00:32:00,019 --> 00:31:57,870

followed him the ones that were more

777

00:32:02,180 --> 00:32:00,029

intellectual or philosophical and he

778

00:32:03,320 --> 00:32:02,190

perhaps was a bit rough and tumble and

779

00:32:05,570 --> 00:32:03,330

yet he was the one that kicked it off

780

00:32:09,500 --> 00:32:05,580

again wasn't it he was yep so all credit

781

00:32:10,840 --> 00:32:09,510

to him and the writers for that it's

782

00:32:12,799 --> 00:32:10,850

been a great series since then

783

00:32:14,899 --> 00:32:12,809

congratulation to you guys for putting

784

00:32:16,279 --> 00:32:14,909

such a great work into this way realize

785

00:32:18,019 --> 00:32:16,289

it's a team effort for all the Canberra

786

00:32:19,549 --> 00:32:18,029

skeptics and you did a great dinner last

787

00:32:21,350 --> 00:32:19,559

night and it has been pointed out you

788

00:32:23,299 --> 00:32:21,360

have the great trick of selling off all

789

00:32:25,039 --> 00:32:23,309

your props so you set up the dinner you

790

00:32:26,750 --> 00:32:25,049

had to log in but you never had to

791

00:32:28,879 --> 00:32:26,760

logout you just had to wander off into

792

00:32:30,590 --> 00:32:28,889

the night and Sam's on clean up to

793

00:32:33,230 --> 00:32:30,600

that's right how many Daleks did you

794

00:32:35,539 --> 00:32:33,240

eventually auction off last night the

795

00:32:37,700 --> 00:32:35,549

total was eight yeah wow yeah well you

796

00:32:38,750 --> 00:32:37,710

raised some good money and what are you

797

00:32:39,919 --> 00:32:38,760

guys going to go to next year's

798

00:32:41,330 --> 00:32:39,929

convention or you're just not even

799

00:32:43,669 --> 00:32:41,340

thinking about that since this one's not

800

00:32:44,899 --> 00:32:43,679

even over yet we've got a long time

801
00:32:49,820 --> 00:32:44,909
before we have to think about that I

802
00:32:52,580 --> 00:32:49,830
think I am I seeing how this is gone and

803
00:32:54,830 --> 00:32:52,590
not having to actually see too many of

804
00:32:56,930 --> 00:32:54,840
the lectures I think I sort of missed

805
00:32:59,509 --> 00:32:56,940
out a little bit on that so going to the

806
00:33:01,340 --> 00:32:59,519
Brisbane one was a Brisbane at will be

807
00:33:03,620 --> 00:33:01,350
good look we appreciate your courage

808
00:33:05,149 --> 00:33:03,630
yeah thank you right now it's trying to

809
00:33:07,789 --> 00:33:05,159
make a charge for that lunch table see

810
00:33:09,350 --> 00:33:07,799
well they don't fit into the secret

811
00:33:11,330 --> 00:33:09,360
corner which is the secret corner

812
00:33:12,889 --> 00:33:11,340
because on one side they have done some

813
00:33:14,149 --> 00:33:12,899

drawings of cats cat and on that side

814

00:33:15,379 --> 00:33:14,159

they haven't quite finished the

815

00:33:18,889 --> 00:33:15,389

paintings they're doing yet he'll be

816

00:33:20,779 --> 00:33:18,899

safe oh and who we got here Mike McRae

817

00:33:22,279 --> 00:33:20,789

now you just gave a great chat about

818

00:33:24,769 --> 00:33:22,289

alternative medicine what were you angry

819

00:33:27,519 --> 00:33:24,779

at in it um I guess primarily actually

820

00:33:31,070 --> 00:33:27,529

looking at alternate medicine as being a

821

00:33:32,740 --> 00:33:31,080

response I guess rather than just a pure

822

00:33:34,909 --> 00:33:32,750

belief system that comes out of nothing

823

00:33:36,799 --> 00:33:34,919

looking at medicine is actually being

824

00:33:38,210 --> 00:33:36,809

scientifically informed but science

825

00:33:40,369 --> 00:33:38,220

being something that too many people

826

00:33:40,950 --> 00:33:40,379

represents a state authority so we've

827

00:33:43,950 --> 00:33:40,960

been looking at

828

00:33:46,500 --> 00:33:43,960

theories clear throughout the skeptic

829

00:33:49,019 --> 00:33:46,510

convention and conspiracy there is also

830

00:33:50,490 --> 00:33:49,029

being a response to a dominant system to

831

00:33:52,500 --> 00:33:50,500

say I don't trust you here's my

832

00:33:53,639 --> 00:33:52,510

alternative belief look I'm certainly on

833

00:33:55,350 --> 00:33:53,649

board with this in fact I've often said

834

00:33:57,360 --> 00:33:55,360

that a lot of skeptics go after the

835

00:33:59,130 --> 00:33:57,370

science for people with the anti-vaxxers

836

00:34:00,899 --> 00:33:59,140

and that sort of thing but in some ways

837

00:34:02,430 --> 00:34:00,909

they're more like anti-capitalist it's

838

00:34:03,899 --> 00:34:02,440

actually not so much the science they're

839

00:34:06,149 --> 00:34:03,909

suspicious of their suspicious of the

840

00:34:07,889 --> 00:34:06,159

capitalism and the industry behind it

841

00:34:09,480 --> 00:34:07,899

absolutely is a correlation there where

842

00:34:11,220 --> 00:34:09,490

there's different value systems at place

843

00:34:13,320 --> 00:34:11,230

so people have their values that inform

844

00:34:14,609 --> 00:34:13,330

various beliefs and those values come

845

00:34:16,440 --> 00:34:14,619

into it regardless of whether it's

846

00:34:17,760 --> 00:34:16,450

believing some alternative medicine or

847

00:34:19,230 --> 00:34:17,770

maybe to do with the environment to do

848

00:34:21,899 --> 00:34:19,240

with their own position in the community

849

00:34:24,300 --> 00:34:21,909

and often if your your cultural group so

850

00:34:27,169 --> 00:34:24,310

the group that you identify most with if

851

00:34:30,570 --> 00:34:27,179

it feels as if by some ways it's not

852

00:34:33,149 --> 00:34:30,580

it's being as we're disempowered or it's

853

00:34:34,889 --> 00:34:33,159

being somehow suppressed and in some way

854

00:34:36,180 --> 00:34:34,899

so if there's oppression going on then

855

00:34:37,409 --> 00:34:36,190

there's going to be a response to that

856

00:34:39,089 --> 00:34:37,419

so where there's power there's going to

857

00:34:40,349 --> 00:34:39,099

be that push back and often up when it

858

00:34:42,149 --> 00:34:40,359

comes to alternative medicine here is

859

00:34:44,010 --> 00:34:42,159

that push back that says I've had an

860

00:34:45,930 --> 00:34:44,020

experience with medicine that informs

861

00:34:47,849 --> 00:34:45,940

those values to say I don't trust you I

862

00:34:49,649 --> 00:34:47,859

don't believe in you in some way here is

863

00:34:51,599 --> 00:34:49,659

my subculture over here which empowers

864

00:34:52,589 --> 00:34:51,609

me and so you'll actually identify with

865

00:34:54,149 --> 00:34:52,599

that but there's something that's

866

00:34:56,150 --> 00:34:54,159

curious it goes on and that is with the

867

00:34:58,260 --> 00:34:56,160

community science is clearly

868

00:35:00,210 --> 00:34:58,270

legitimization it is a power and so

869

00:35:01,530 --> 00:35:00,220

while you're stepping back from it at

870

00:35:03,359 --> 00:35:01,540

the same time you can't divorce yourself

871

00:35:05,760 --> 00:35:03,369

from it entirely which is where we get

872

00:35:07,650 --> 00:35:05,770

pseudoscience and hybridization language

873

00:35:09,390 --> 00:35:07,660

they actually sound scientific because

874

00:35:10,920 --> 00:35:09,400

you kind of want to be identified you

875

00:35:13,320 --> 00:35:10,930

know as if you've got some legitimacy

876

00:35:14,910 --> 00:35:13,330

but you can't actually be part of that

877

00:35:16,320 --> 00:35:14,920

scientific culture as well and so you'll

878

00:35:18,359 --> 00:35:16,330

retain those values on the other side

879

00:35:20,579 --> 00:35:18,369

you obviously studied many of the

880

00:35:22,200 --> 00:35:20,589

different alternative practices what's

881

00:35:24,089 --> 00:35:22,210

your favorite us for I was going where

882

00:35:26,730 --> 00:35:24,099

that's out there I in terms of weird

883

00:35:28,470 --> 00:35:26,740

stuff um I'm a bit of fan of Reiki as

884

00:35:30,060 --> 00:35:28,480

Reiki has so many different variations

885

00:35:32,070 --> 00:35:30,070

you can even do it remotely over the

886

00:35:34,170 --> 00:35:32,080

phone sometimes I've got a really just

887

00:35:35,880 --> 00:35:34,180

anything to do with vitalism pretty much

888

00:35:37,320 --> 00:35:35,890

because you know violence and being that

889

00:35:39,540 --> 00:35:37,330

there is some sort of essence in things

890

00:35:41,579 --> 00:35:39,550

that is non-materialistic but where does

891

00:35:43,320 --> 00:35:41,589

that go back to the Victorian or before

892

00:35:45,510 --> 00:35:43,330

before that so it was actually quite a

893

00:35:47,130 --> 00:35:45,520

legitimate science to begin with in that

894

00:35:48,930 --> 00:35:47,140

initially when they looking at the

895

00:35:50,670 --> 00:35:48,940

material universe so being defined by

896

00:35:52,380 --> 00:35:50,680

laws and rules there was a response to

897

00:35:53,740 --> 00:35:52,390

that which said you can't reduce things

898

00:35:56,470 --> 00:35:53,750

down to

899

00:35:58,090 --> 00:35:56,480

he rules that define the universe things

900

00:36:00,610 --> 00:35:58,100

have much more of a nebulous concept

901
00:36:02,740 --> 00:36:00,620
more meaning so there was a response to

902
00:36:05,440 --> 00:36:02,750
said the more that you actually quantify

903
00:36:07,270 --> 00:36:05,450
things the more that you actually count

904
00:36:08,590 --> 00:36:07,280
things in such a way make up laws the

905
00:36:09,820 --> 00:36:08,600
more you take away from it you don't

906
00:36:12,160 --> 00:36:09,830
meaning and which is true i mean if you

907
00:36:13,570 --> 00:36:12,170
look at science you do quantify stuff

908
00:36:14,590 --> 00:36:13,580
but you always have to come back in a

909
00:36:16,450 --> 00:36:14,600
way and kind of give it some sort of

910
00:36:18,490 --> 00:36:16,460
meaning as well and people like Rupert

911
00:36:19,660 --> 00:36:18,500
Sheldrake hopped onto this and gone you

912
00:36:20,890 --> 00:36:19,670
know that that was where science should

913
00:36:22,000 --> 00:36:20,900

have gone and it never did because

914

00:36:23,260 --> 00:36:22,010

that's the kind of thing he says we

915

00:36:25,060 --> 00:36:23,270

that's where he reckons science goes

916

00:36:26,380 --> 00:36:25,070

wrong that's right and you do get I mean

917

00:36:27,430 --> 00:36:26,390

that's there's nothing new and the

918

00:36:28,270 --> 00:36:27,440

Sheldrake's of the world there's me

919

00:36:29,500 --> 00:36:28,280

something that's been around for

920

00:36:31,000 --> 00:36:29,510

centuries and that the more that you

921

00:36:32,740 --> 00:36:31,010

reduce things down the more you take

922

00:36:36,010 --> 00:36:32,750

away something from it there was a

923

00:36:37,900 --> 00:36:36,020

naturalist in the 1700s bono do before

924

00:36:39,670 --> 00:36:37,910

now do be fun was the first guy can't

925

00:36:41,110 --> 00:36:39,680

encyclopedia so you just want to write

926
00:36:43,360 --> 00:36:41,120
everything that was known at the time he

927
00:36:45,010 --> 00:36:43,370
went all these books but he thought

928
00:36:46,480 --> 00:36:45,020
matts was a useful thing that's not the

929
00:36:47,980 --> 00:36:46,490
be-all and end-all and he opposed that

930
00:36:49,750 --> 00:36:47,990
he said look maths actually takes away

931
00:36:51,670 --> 00:36:49,760
from stuff and that was during the time

932
00:36:53,500 --> 00:36:51,680
when vitalism was becoming a big idea

933
00:36:56,260 --> 00:36:53,510
because they wanted to find some force

934
00:36:58,210 --> 00:36:56,270
or some sort of rule that that governed

935
00:36:59,770 --> 00:36:58,220
biology so while you had Newton who said

936
00:37:01,480 --> 00:36:59,780
well look at gravity gravity is in

937
00:37:02,980 --> 00:37:01,490
everything has mass and everything else

938
00:37:05,050 --> 00:37:02,990

mass comes together thanks to this rule

939

00:37:07,150 --> 00:37:05,060

you know I found a hypothesis don't know

940

00:37:08,650 --> 00:37:07,160

what it is but it's a rule biologist

941

00:37:10,210 --> 00:37:08,660

wanted the same thing so well maybe this

942

00:37:12,070 --> 00:37:10,220

vitalism thing but every time they

943

00:37:13,330 --> 00:37:12,080

looked at it it robbed it of its meaning

944

00:37:14,650 --> 00:37:13,340

because you'd find all these little

945

00:37:16,690 --> 00:37:14,660

rules that made biology quite

946

00:37:18,280 --> 00:37:16,700

complicated so the vitalist sexually

947

00:37:20,110 --> 00:37:18,290

became more of people who said well

948

00:37:21,790 --> 00:37:20,120

don't look at the rules it's just a

949

00:37:23,410 --> 00:37:21,800

thing and that's where you get things

950

00:37:26,680 --> 00:37:23,420

like homeopathy coming out in the end in

951
00:37:28,060 --> 00:37:26,690
that homeopathy is all matter has some

952
00:37:29,830 --> 00:37:28,070
sort of vital essence to it this

953
00:37:32,140 --> 00:37:29,840
vitalism and if you can put it into

954
00:37:33,820 --> 00:37:32,150
water or sampson diliman and dilute it

955
00:37:35,350 --> 00:37:33,830
right down smack it a few times to get

956
00:37:36,550 --> 00:37:35,360
that vital essence out what you're doing

957
00:37:38,710 --> 00:37:36,560
is you're pulling out making it stronger

958
00:37:41,170 --> 00:37:38,720
hence where homeopathy came from in

959
00:37:42,790 --> 00:37:41,180
concept now a little bit after that we

960
00:37:44,470 --> 00:37:42,800
came up with things like avocados number

961
00:37:46,870 --> 00:37:44,480
we start understand more about how you

962
00:37:49,570 --> 00:37:46,880
can break matter down into atoms and

963
00:37:50,950 --> 00:37:49,580

smaller components but yeah in ish alee

964

00:37:52,630 --> 00:37:50,960

with all out the whole vitalism thing

965

00:37:54,550 --> 00:37:52,640

was actually quite scientific it's just

966

00:37:56,770 --> 00:37:54,560

we've discarded it belong since then so

967

00:37:58,570 --> 00:37:56,780

how do you argue it's ahead how do you

968

00:38:01,690 --> 00:37:58,580

argue on the same level with homeopathy

969

00:38:03,070 --> 00:38:01,700

because you're invoking some

970

00:38:05,290 --> 00:38:03,080

the spirit of science that they don't

971

00:38:07,810 --> 00:38:05,300

really follow you don't and that's real

972

00:38:09,160 --> 00:38:07,820

it comes down to um yeah it's probably

973

00:38:10,720 --> 00:38:09,170

the biggest question of ghost often is

974

00:38:14,140 --> 00:38:10,730

is how do you win over people how do you

975

00:38:16,090 --> 00:38:14,150

actually convince you don't you come dr.

976

00:38:17,320 --> 00:38:16,100

Craig climate car mentioned in his talk

977

00:38:18,640 --> 00:38:17,330

something quite interesting and that is

978

00:38:20,890 --> 00:38:18,650

when it comes to people you have to find

979

00:38:22,900 --> 00:38:20,900

shared values you know we are social

980

00:38:25,060 --> 00:38:22,910

animals we we always listen to people

981

00:38:26,800 --> 00:38:25,070

who seem to identify with with our

982

00:38:28,360 --> 00:38:26,810

identity in some way so you have to

983

00:38:29,620 --> 00:38:28,370

identify in someone what what things

984

00:38:31,330 --> 00:38:29,630

that we already share if you don't share

985

00:38:33,610 --> 00:38:31,340

science find something else to discuss

986

00:38:35,650 --> 00:38:33,620

and then as they slowly identify you as

987

00:38:37,090 --> 00:38:35,660

being a friend or someone who is in part

988

00:38:38,530 --> 00:38:37,100

of their social group more of those

989

00:38:40,300 --> 00:38:38,540

values will come across and they may

990

00:38:41,860 --> 00:38:40,310

actually evolve our time but there is no

991

00:38:43,000 --> 00:38:41,870

conversation you can have to sit down

992

00:38:44,710 --> 00:38:43,010

with a stranger to say I'm going to

993

00:38:46,330 --> 00:38:44,720

convince you so if you if that's your

994

00:38:47,710 --> 00:38:46,340

goal you're better off just having a

995

00:38:50,290 --> 00:38:47,720

chat about something that you do

996

00:38:52,210 --> 00:38:50,300

actually share sports politics art

997

00:38:53,890 --> 00:38:52,220

whatever it is and ignore the rest

998

00:38:55,630 --> 00:38:53,900

because now you've actually set up in

999

00:38:56,620 --> 00:38:55,640

someone the idea goes to know that guy

1000

00:38:58,510 --> 00:38:56,630

who was talking about aren't we both

1001
00:39:00,640 --> 00:38:58,520
like that yeah there are into science

1002
00:39:02,230 --> 00:39:00,650
uceda just that little bit to say maybe

1003
00:39:04,270 --> 00:39:02,240
we share a little bit more than just a

1004
00:39:06,730 --> 00:39:04,280
love of something like art is it worth

1005
00:39:07,990 --> 00:39:06,740
trying me well it worked for me it it

1006
00:39:09,580 --> 00:39:08,000
worked for me argument which you often

1007
00:39:11,830 --> 00:39:09,590
hear from people that take alternative

1008
00:39:13,750 --> 00:39:11,840
cures only if you actually share the

1009
00:39:14,980 --> 00:39:13,760
same social group only if I already like

1010
00:39:16,270 --> 00:39:14,990
you if there's somebody there that you

1011
00:39:17,890 --> 00:39:16,280
have an influence where you say well

1012
00:39:19,270 --> 00:39:17,900
this work for me if you're a powerful

1013
00:39:21,190 --> 00:39:19,280

person in their social group they'll be

1014

00:39:22,900 --> 00:39:21,200

influenced if you're not forget about it

1015

00:39:24,400 --> 00:39:22,910

it's not going to work on that level we

1016

00:39:26,110 --> 00:39:24,410

have to approach this culturally you

1017

00:39:27,640 --> 00:39:26,120

know we can't be individuals going up

1018

00:39:29,410 --> 00:39:27,650

there changing minds we have to operate

1019

00:39:30,940 --> 00:39:29,420

on a level that says first of all you

1020

00:39:32,500 --> 00:39:30,950

have to like me first of all you have to

1021

00:39:34,930 --> 00:39:32,510

be part of my social group and share my

1022

00:39:36,400 --> 00:39:34,940

identity and then maybe we can discuss

1023

00:39:37,990 --> 00:39:36,410

things in overtime your beliefs will

1024

00:39:39,970 --> 00:39:38,000

evolve and I think the more that we do

1025

00:39:41,830 --> 00:39:39,980

that more we build the the cultural

1026

00:39:43,720 --> 00:39:41,840

identity rather than isolate and

1027

00:39:45,280 --> 00:39:43,730

ostracize and say you belong to that

1028

00:39:46,870 --> 00:39:45,290

other group you're an idiot who believes

1029

00:39:47,950 --> 00:39:46,880

in different things then all you're

1030

00:39:49,750 --> 00:39:47,960

doing is just pushing them into another

1031

00:39:51,130 --> 00:39:49,760

you know subculture that means you can't

1032

00:39:52,540 --> 00:39:51,140

communicate it was it you that mentioned

1033

00:39:54,010 --> 00:39:52,550

that Al Gore was perhaps possibly the

1034

00:39:55,720 --> 00:39:54,020

worst spokesman for climate change you

1035

00:39:57,010 --> 00:39:55,730

can have for various reasons know that

1036

00:39:58,810 --> 00:39:57,020

that was that was Craig but I mean

1037

00:40:00,040 --> 00:39:58,820

that's a good good example of that in

1038

00:40:01,870 --> 00:40:00,050

that you've actually got someone who

1039

00:40:04,270 --> 00:40:01,880

already belongs to one subculture saying

1040

00:40:05,920 --> 00:40:04,280

well here's this other system those

1041

00:40:07,510 --> 00:40:05,930

people who identify them is not being

1042

00:40:08,560 --> 00:40:07,520

part of them and not going to listen and

1043

00:40:10,300 --> 00:40:08,570

we do that all the time will go to

1044

00:40:12,130 --> 00:40:10,310

someone who is not part of our group and

1045

00:40:13,420 --> 00:40:12,140

say you're wrong you don't believe in

1046

00:40:15,370 --> 00:40:13,430

the same things I do here's where you

1047

00:40:16,599 --> 00:40:15,380

should be right we haven't got to hope

1048

00:40:17,920 --> 00:40:16,609

whereas you start with things where

1049

00:40:20,079 --> 00:40:17,930

people already agreeing with you they

1050

00:40:21,970 --> 00:40:20,089

already value the same things and forget

1051
00:40:23,650 --> 00:40:21,980
the part we have to convince them slowly

1052
00:40:25,059 --> 00:40:23,660
over time beliefs will actually change

1053
00:40:26,289 --> 00:40:25,069
we're never going to do it completely

1054
00:40:27,819 --> 00:40:26,299
we're not going to have a perfect

1055
00:40:29,349 --> 00:40:27,829
society where everybody is going to be

1056
00:40:31,359 --> 00:40:29,359
scientifically informed and sharing

1057
00:40:32,380 --> 00:40:31,369
those values and maybe we shouldn't I

1058
00:40:34,539 --> 00:40:32,390
mean maybe there is strength in that

1059
00:40:36,400 --> 00:40:34,549
diversity but what we do need to do is

1060
00:40:38,319 --> 00:40:36,410
try to monitor that people's decisions

1061
00:40:40,390 --> 00:40:38,329
are being made with their own interests

1062
00:40:42,099 --> 00:40:40,400
are they want the best outcome and

1063
00:40:43,499 --> 00:40:42,109

that's always hard with medicine because

1064

00:40:45,910 --> 00:40:43,509

with medicine people actually make

1065

00:40:47,410 --> 00:40:45,920

choices that they don't want people want

1066

00:40:49,269 --> 00:40:47,420

to be healthy when they make a choice

1067

00:40:50,980 --> 00:40:49,279

that makes them unhealthy where do we

1068

00:40:52,630 --> 00:40:50,990

stand ethically and I think that's where

1069

00:40:53,829 --> 00:40:52,640

really we have to find a way of doing it

1070

00:40:55,450 --> 00:40:53,839

that sort of brings people together

1071

00:40:57,400 --> 00:40:55,460

rather than just divert you know

1072

00:40:59,740 --> 00:40:57,410

dividing people into different cultures

1073

00:41:01,990 --> 00:40:59,750

here in Canberra the topics being sort

1074

00:41:03,640 --> 00:41:02,000

of conspiracies all weekend now is there

1075

00:41:05,470 --> 00:41:03,650

one conspiracy that despite the lack of

1076

00:41:06,940 --> 00:41:05,480

evidence you would find a rather good if

1077

00:41:08,529 --> 00:41:06,950

it was true or you like would you be

1078

00:41:09,970 --> 00:41:08,539

tickled pink if it was actually real a

1079

00:41:11,589 --> 00:41:09,980

conspiracy look to be honest I know

1080

00:41:13,690 --> 00:41:11,599

absolutely nothing about the whole JFK

1081

00:41:15,640 --> 00:41:13,700

conspiracy my partner's American and

1082

00:41:17,410 --> 00:41:15,650

they had recently that Australian guy

1083

00:41:19,150 --> 00:41:17,420

who's come out with the ballistics

1084

00:41:20,920 --> 00:41:19,160

reports and the Secret Service goal I've

1085

00:41:22,059 --> 00:41:20,930

done it yeah that's right um to be

1086

00:41:23,680 --> 00:41:22,069

honest that kind of tweak no way I've

1087

00:41:25,480 --> 00:41:23,690

got no idea and this is a difference I

1088

00:41:26,799 --> 00:41:25,490

way that sounds plausible but I know my

1089

00:41:28,150 --> 00:41:26,809

limitations here I know I know nothing

1090

00:41:29,999 --> 00:41:28,160

about it but I mentioned it to my

1091

00:41:31,990 --> 00:41:30,009

partner she got a little bit offended

1092

00:41:34,599 --> 00:41:32,000

being American you know this is

1093

00:41:36,279 --> 00:41:34,609

something to hurt that has a very deep

1094

00:41:37,390 --> 00:41:36,289

cultural meaning so for me to say

1095

00:41:38,680 --> 00:41:37,400

weren't there something is and she's

1096

00:41:40,509 --> 00:41:38,690

gone well this is Australian who's

1097

00:41:42,910 --> 00:41:40,519

coming out and rubbished our reports she

1098

00:41:44,410 --> 00:41:42,920

acted emotionally towards it I still

1099

00:41:46,359 --> 00:41:44,420

have no idea maybe something to read up

1100

00:41:48,279 --> 00:41:46,369

on one day i'm not sure but that was

1101

00:41:50,380 --> 00:41:48,289

something that tweaked me went based on

1102

00:41:51,789 --> 00:41:50,390

my ignorance that actually sounds a

1103

00:41:53,349 --> 00:41:51,799

little bit plausible it sounds less like

1104

00:41:54,460 --> 00:41:53,359

these other conspiracies that require a

1105

00:41:55,870 --> 00:41:54,470

whole lot of people to keep a secret

1106

00:41:57,039 --> 00:41:55,880

this seemed like something that you

1107

00:41:59,289 --> 00:41:57,049

could actually sweep under the rug and

1108

00:42:00,999 --> 00:41:59,299

sound okay but to be honest as I said

1109

00:42:02,289 --> 00:42:01,009

I've got no idea and where can we find

1110

00:42:03,970 --> 00:42:02,299

you online of the find out more about

1111

00:42:05,499 --> 00:42:03,980

the talk you just gave you could

1112

00:42:08,230 --> 00:42:05,509

probably just stuff on me on Twitter so

1113

00:42:10,569 --> 00:42:08,240

it's tribal scientist cool okay it's not

1114

00:42:11,740 --> 00:42:10,579

a discussion not an argument absolutely

1115

00:42:14,140 --> 00:42:11,750

that's always there find the values you

1116

00:42:16,720 --> 00:42:14,150

share first well all the clouds rushing

1117

00:42:18,220 --> 00:42:16,730

at it's a wrap for 2013 skeptics

1118

00:42:19,900 --> 00:42:18,230

convention and of course you made the

1119

00:42:21,400 --> 00:42:19,910

big announcement there Richard at the

1120

00:42:23,319 --> 00:42:21,410

end which got a huge round of applause

1121

00:42:24,500 --> 00:42:23,329

almost a standing ovation what's the go

1122

00:42:25,760 --> 00:42:24,510

for next year

1123

00:42:28,190 --> 00:42:25,770

announced that I was leaving everybody

1124

00:42:30,140 --> 00:42:28,200

aboard now then the announcement is the

1125

00:42:32,960 --> 00:42:30,150

stone skeptics National Convention for

1126
00:42:35,750 --> 00:42:32,970
2014 will be in sydney australia on the

1127
00:42:38,360 --> 00:42:35,760
weekend of the 29th and 30th of november

1128
00:42:40,730 --> 00:42:38,370
special guests the skeptics guide to the

1129
00:42:42,350 --> 00:42:40,740
universe in George hurry up wow so look

1130
00:42:43,730 --> 00:42:42,360
that's a third great convention in a row

1131
00:42:45,230 --> 00:42:43,740
and of course it had a wonderful feel of

1132
00:42:46,910 --> 00:42:45,240
Canberra here it's had a great venue

1133
00:42:48,770 --> 00:42:46,920
it's going to be hard to top the CSIRO

1134
00:42:50,360 --> 00:42:48,780
it's a wonderful place look at all these

1135
00:42:52,730 --> 00:42:50,370
people streaming out there delighted

1136
00:42:56,150 --> 00:42:52,740
they had a wonderful weekend thank you

1137
00:42:58,370 --> 00:42:56,160
so how was a few this weekend how was

1138
00:43:00,380 --> 00:42:58,380

this very Canberra skeptical event for

1139

00:43:01,730 --> 00:43:00,390

you it was wonderful it was incredibly

1140

00:43:04,190 --> 00:43:01,740

exhausting and I got three hours sleep

1141

00:43:07,490 --> 00:43:04,200

last night ah that means is you've been

1142

00:43:09,020 --> 00:43:07,500

doing some post activities um yes yes I

1143

00:43:10,340 --> 00:43:09,030

went to the pub last night actually yeah

1144

00:43:14,150 --> 00:43:10,350

no that's great now what do you think

1145

00:43:17,120 --> 00:43:14,160

was the best talk today oh that's a very

1146

00:43:18,380 --> 00:43:17,130

tough call but I'm probably gonna go

1147

00:43:19,970 --> 00:43:18,390

with Patrick Stokes because I was

1148

00:43:21,440 --> 00:43:19,980

looking forward to it so much and how do

1149

00:43:22,790 --> 00:43:21,450

you feel about the excitement of next

1150

00:43:25,940 --> 00:43:22,800

year when skeptics guide to the universe

1151

00:43:27,140 --> 00:43:25,950

and George harbor I barely have to

1152

00:43:29,570 --> 00:43:27,150

travel which means I don't really get

1153

00:43:32,270 --> 00:43:29,580

much of a holiday actually but no very

1154

00:43:34,640 --> 00:43:32,280

cool very exciting what do you think was

1155

00:43:36,320 --> 00:43:34,650

the big highlight of the weekend on well

1156

00:43:38,420 --> 00:43:36,330

I thought the whole thing was a

1157

00:43:40,280 --> 00:43:38,430

highlight dad my highlight personally

1158

00:43:42,710 --> 00:43:40,290

maenad was the fact that last year's you

1159

00:43:44,240 --> 00:43:42,720

know I was in convenor so my highlight

1160

00:43:46,310 --> 00:43:44,250

was that I could sit there and watch it

1161

00:43:47,810 --> 00:43:46,320

all go by and relax totally right you

1162

00:43:49,940 --> 00:43:47,820

have to do nothing now I've got to say

1163

00:43:52,700 --> 00:43:49,950

last year's convention in Melbourne had

1164

00:43:54,230 --> 00:43:52,710

a slightly more younger touch because of

1165

00:43:56,180 --> 00:43:54,240

the young Melbourne skeptics I thought

1166

00:43:58,220 --> 00:43:56,190

that they're slightly older crowd here

1167

00:43:59,930 --> 00:43:58,230

but a slightly more varied crowd than

1168

00:44:02,570 --> 00:43:59,940

last year am I getting that wrong or not

1169

00:44:04,490 --> 00:44:02,580

well as you can see may know there's a

1170

00:44:06,800 --> 00:44:04,500

little bit of gray on the roof here but

1171

00:44:09,380 --> 00:44:06,810

I'm a young at heart sort of guys I know

1172

00:44:10,940 --> 00:44:09,390

what we really did aim very very hard to

1173

00:44:13,940 --> 00:44:10,950

get the young Australian skeptics there

1174

00:44:16,520 --> 00:44:13,950

we had the special lunch with Rebecca

1175

00:44:18,230 --> 00:44:16,530

and DJ there to get the Mennonites to I

1176

00:44:20,660 --> 00:44:18,240

spoke with Jason ball and a number of

1177

00:44:22,070 --> 00:44:20,670

others and we work very hard to get the

1178

00:44:23,690 --> 00:44:22,080

young ones because they're the future of

1179

00:44:25,430 --> 00:44:23,700

skepticism as to it because I love them

1180

00:44:26,680 --> 00:44:25,440

are based in Melbourne to and maybe not

1181

00:44:29,589 --> 00:44:26,690

so many around the Canberra

1182

00:44:31,630 --> 00:44:29,599

well they all hang out to hang around

1183

00:44:33,069 --> 00:44:31,640

together on social media anyway so it

1184

00:44:34,960 --> 00:44:33,079

doesn't really matter where they are but

1185

00:44:36,880 --> 00:44:34,970

look getting back to this one credit

1186

00:44:39,550 --> 00:44:36,890

where credit's due this is a fabulous

1187

00:44:41,650 --> 00:44:39,560

location the csr oh yeah Discovery

1188

00:44:43,960 --> 00:44:41,660

Center its rate internet great internet

1189

00:44:47,290 --> 00:44:43,970

connection here it is particularly when

1190

00:44:49,630 --> 00:44:47,300

it works made ad excellent look out now

1191

00:44:51,430 --> 00:44:49,640

you off to the anomalous psychology in

1192

00:44:54,609 --> 00:44:51,440

the pub tonight yes purely for the

1193

00:44:56,410 --> 00:44:54,619

anomalous content nothing else dragging

1194

00:44:58,089 --> 00:44:56,420

me there at all manner okay and your

1195

00:44:59,349 --> 00:44:58,099

very favorite talk about of the year

1196

00:45:01,630 --> 00:44:59,359

there must have been one talk this

1197

00:45:06,670 --> 00:45:01,640

afternoon that got you going well well I

1198

00:45:09,069 --> 00:45:06,680

thought that Craig was from the CSIRO as

1199

00:45:10,750 --> 00:45:09,079

an old science communicated myself and

1200

00:45:13,900 --> 00:45:10,760

it turns out we have worked in the same

1201

00:45:17,440 --> 00:45:13,910

place at slightly different times and I

1202

00:45:19,720 --> 00:45:17,450

thought his his talk about science

1203

00:45:22,210 --> 00:45:19,730

communication in the way that we need to

1204

00:45:24,250 --> 00:45:22,220

reach out to people were very very good

1205

00:45:28,120 --> 00:45:24,260

but amanda de vows a number of other

1206

00:45:30,460 --> 00:45:28,130

people Paul Willis as well and really

1207

00:45:33,190 --> 00:45:30,470

when it's all said and done skepticism

1208

00:45:34,690 --> 00:45:33,200

it's fine to sit around in halls and

1209

00:45:37,180 --> 00:45:34,700

convention theatres and talk about

1210

00:45:38,829 --> 00:45:37,190

skepticism but ultimately we've got to

1211

00:45:41,500 --> 00:45:38,839

get it out there into the masses and

1212

00:45:43,120 --> 00:45:41,510

that's a very difficult thing to do look

1213

00:45:45,790 --> 00:45:43,130

at the we here just making a quick

1214

00:45:47,140 --> 00:45:45,800

getaway from the anu car park we think

1215

00:45:48,250 --> 00:45:47,150

we've got the same car we came in but

1216

00:45:50,319 --> 00:45:48,260

frankly it doesn't matter this what

1217

00:45:52,150 --> 00:45:50,329

isn't too bad is it it's not too bad at

1218

00:45:53,890 --> 00:45:52,160

all I'm not too bad at all now of course

1219

00:45:55,660 --> 00:45:53,900

you know what do you think was a

1220

00:45:58,300 --> 00:45:55,670

highlight of weekend for you there well

1221

00:46:00,849 --> 00:45:58,310

firstly about the car okay in quantum

1222

00:46:02,770 --> 00:46:00,859

mechanics the wave function one electron

1223

00:46:05,140 --> 00:46:02,780

is the same as the wave function for

1224

00:46:06,609 --> 00:46:05,150

another and if two electrons happen to

1225

00:46:09,550 --> 00:46:06,619

collide you can no longer distinguish

1226

00:46:11,260 --> 00:46:09,560

which one was which so so if quantum

1227

00:46:12,640 --> 00:46:11,270

mechanics applied on a larger scale it

1228

00:46:14,470 --> 00:46:12,650

wouldn't really matter which car we were

1229

00:46:17,680 --> 00:46:14,480

in it would but all cars would be

1230

00:46:19,480 --> 00:46:17,690

equivalent you see a lot like that I'll

1231

00:46:22,150 --> 00:46:19,490

look with we're already playing already

1232

00:46:24,339 --> 00:46:22,160

playing a car tag with your other people

1233

00:46:25,809 --> 00:46:24,349

on that we've got the robotic Aaron the

1234

00:46:27,970 --> 00:46:25,819

butter cow in front of us a world

1235

00:46:29,770 --> 00:46:27,980

someone's got the corporate car haven't

1236

00:46:31,300 --> 00:46:29,780

they now Richard Saunders you'd be a

1237

00:46:33,309 --> 00:46:31,310

little bit tired after all that what's

1238

00:46:35,170 --> 00:46:33,319

been going on this weekend I am it was

1239

00:46:35,770 --> 00:46:35,180

exhausting but I mean it was a big day

1240

00:46:37,030 --> 00:46:35,780

on Friday

1241

00:46:39,430 --> 00:46:37,040

getting down here then the Friday

1242

00:46:41,260 --> 00:46:39,440

evening events saturday was up full-on

1243

00:46:43,870 --> 00:46:41,270

than the dinner and then today's been

1244

00:46:45,430 --> 00:46:43,880

really busy too so we're four very tired

1245

00:46:46,870 --> 00:46:45,440

but happy skeptics driving back to

1246

00:46:49,030 --> 00:46:46,880

Sydney and once again I want to thank

1247

00:46:51,040 --> 00:46:49,040

these skeptic zone lessness for for

1248

00:46:52,210 --> 00:46:51,050

helping me that be able to come here

1249

00:46:53,500 --> 00:46:52,220

this weekend and I hope that the

1250

00:46:56,200 --> 00:46:53,510

interviews have lived up to what you

1251
00:46:58,330 --> 00:46:56,210
wanted probably not behaved to you I say

1252
00:47:00,460 --> 00:46:58,340
if they haven't and it's time to get off

1253
00:47:03,550 --> 00:47:00,470
to the Campbeltown row a car park now

1254
00:47:11,220 --> 00:47:03,560
we're of course tights our pants and

1255
00:47:11,230 --> 00:47:22,340
you

1256
00:47:26,660 --> 00:47:24,530
the internet maybe the information

1257
00:47:28,190 --> 00:47:26,670
superhighway but there is no promise

1258
00:47:30,380 --> 00:47:28,200
that the information is factually

1259
00:47:32,420 --> 00:47:30,390
correct so when people use the internet

1260
00:47:34,400 --> 00:47:32,430
to educate themselves they are at risk

1261
00:47:36,830 --> 00:47:34,410
of being misinformed and reaching false

1262
00:47:39,350 --> 00:47:36,840
conclusions but don't worry there is a

1263
00:47:41,180 --> 00:47:39,360

solution Roboto is a browser plug-in

1264

00:47:42,800 --> 00:47:41,190

which tells users when the webpage they

1265

00:47:45,530 --> 00:47:42,810

are currently viewing has been disputed

1266

00:47:47,600 --> 00:47:45,540

elsewhere on the internet with rabbit

1267

00:47:49,580 --> 00:47:47,610

are installed any time you read a page

1268

00:47:51,380 --> 00:47:49,590

making a claim of truth you have

1269

00:47:54,020 --> 00:47:51,390

immediate access to another page which

1270

00:47:55,670 --> 00:47:54,030

explains why that claim is incorrect so

1271

00:47:57,860 --> 00:47:55,680

you not only get an opposing perspective

1272

00:47:59,840 --> 00:47:57,870

and more information on the subject but

1273

00:48:02,270 --> 00:47:59,850

you get a direct demonstration of how to

1274

00:48:04,730 --> 00:48:02,280

critically analyze the page you just

1275

00:48:06,470 --> 00:48:04,740

read imagine a world where every

1276

00:48:08,480 --> 00:48:06,480

internet user was able to critically

1277

00:48:10,790 --> 00:48:08,490

reflect on the information that the

1278

00:48:12,350 --> 00:48:10,800

internet presents to them because that

1279

00:48:15,200 --> 00:48:12,360

is the internet that row butter and its

1280

00:48:19,610 --> 00:48:15,210

community of volunteers are building go

1281

00:48:22,280 --> 00:48:19,620

to rebuttal com that's our b ut our com

1282

00:48:23,570 --> 00:48:22,290

install the plug-in and see what you can

1283

00:48:42,750 --> 00:48:23,580

do to help us bring about this

1284

00:48:47,710 --> 00:48:44,980

thank you for listening to the skeptic

1285

00:48:50,740 --> 00:48:47,720

zonen once again congratulations to

1286

00:48:53,740 --> 00:48:50,750

Loretta Marin for that wonderful award

1287

00:48:57,160 --> 00:48:53,750

of the order of australia now before I

1288

00:48:59,740 --> 00:48:57,170

go my friends in Sydney don't forget to

1289

00:49:03,190 --> 00:48:59,750

come along to Sydney skeptics in the pub

1290

00:49:06,370 --> 00:49:03,200

on Thursday the sixth of february at the

1291

00:49:10,599 --> 00:49:06,380

crown hotel our guest speaker is Rob

1292

00:49:13,990 --> 00:49:10,609

burn from rotary about ending polio end

1293

00:49:17,380 --> 00:49:14,000

polio now campaign and rotary do a

1294

00:49:20,290 --> 00:49:17,390

wonderful job internationally in helping

1295

00:49:24,130 --> 00:49:20,300

to bring this disease to hopefully a

1296

00:49:29,620 --> 00:49:24,140

swift end for more information go to

1297

00:49:31,450 --> 00:49:29,630

meetup.com / aust skeptics so those

1298

00:49:34,300 --> 00:49:31,460

people in Sydney please come along and

1299

00:49:37,750 --> 00:49:34,310

hear what rotary has to say about ending

1300

00:49:40,329 --> 00:49:37,760

polio well I better go and lie down for

1301

00:49:42,220 --> 00:49:40,339

a week make sure I'm well rested and

1302

00:49:45,579 --> 00:49:42,230

recovered for the next week's episode on

1303

00:49:47,950 --> 00:49:45,589

the skeptic zone until then this is

1304

00:49:54,099 --> 00:49:47,960

Richard Saunders signing off from Sydney

1305

00:49:58,780 --> 00:49:54,109

Australia you've been listening to the

1306

00:50:02,620 --> 00:49:58,790

skeptic zone visit our website at www