

A close-up shot of Arthur C. Clarke, an elderly man with glasses, speaking and gesturing with his hands raised. The background is dark and out of focus.

Arthur C. Clarke
ISU Chancellor



1
00:00:41,350 --> 00:00:39,030
space

2
00:00:43,430 --> 00:00:41,360
the endless frontier

3
00:00:46,069 --> 00:00:43,440
someday in our future explorers and

4
00:00:48,310 --> 00:00:46,079
adventurers will sail among these stars

5
00:00:50,549 --> 00:00:48,320
discovering new worlds and possibly new

6
00:00:52,229 --> 00:00:50,559
civilizations

7
00:00:54,310 --> 00:00:52,239
taking life where no life has been

8
00:00:57,430 --> 00:00:54,320
before and carrying the seats of

9
00:00:59,750 --> 00:00:57,440
humanity to worlds without end

10
00:01:02,310 --> 00:00:59,760
but how does this future come about

11
00:01:07,510 --> 00:01:02,320
who will lead this journey into tomorrow

12
00:01:10,390 --> 00:01:08,550
hello

13
00:01:12,630 --> 00:01:10,400

i'm marina certis

14

00:01:15,270 --> 00:01:12,640
you may know me as councillor diana troy

15

00:01:17,429 --> 00:01:15,280
a member of the crew of this great ship

16

00:01:19,830 --> 00:01:17,439
on our television series star trek the

17

00:01:22,070 --> 00:01:19,840
next generation we live in a fictional

18

00:01:23,990 --> 00:01:22,080
future one in which the great breakout

19

00:01:30,149 --> 00:01:24,000
of humanity from the cradle of earth is

20

00:01:33,429 --> 00:01:32,230
but the world of star trek is only

21

00:01:35,190 --> 00:01:33,439
fiction

22

00:01:36,550 --> 00:01:35,200
there are no guarantees that the people

23

00:01:38,230 --> 00:01:36,560
of earth can make it through the

24

00:01:41,910 --> 00:01:38,240
difficult times we face at the end of

25

00:01:43,990 --> 00:01:41,920
the 20th century yet we can succeed if

26

00:01:46,069 --> 00:01:44,000

we work together

27

00:01:48,310 --> 00:01:46,079

one project going on right now is not

28

00:01:50,149 --> 00:01:48,320

only facing the challenge of space

29

00:01:52,469 --> 00:01:50,159

it is helping people from cultures

30

00:01:54,870 --> 00:01:52,479

around the world learn how to live and

31

00:01:58,630 --> 00:01:54,880

work in harmony it is called the

32

00:02:02,230 --> 00:01:58,640

international space university or isu

33

00:02:04,630 --> 00:02:02,240

isu was founded in 1987 to provide a new

34

00:02:07,190 --> 00:02:04,640

type of education which would give those

35

00:02:09,669 --> 00:02:07,200

facing the challenges of space a global

36

00:02:11,110 --> 00:02:09,679

and multi-disciplinary background at a

37

00:02:13,990 --> 00:02:11,120

level of excellence which could be

38

00:02:17,990 --> 00:02:14,000

understood and accepted around the world

39

00:02:20,550 --> 00:02:18,000

today isu is sponsored by over 130 major

40

00:02:22,790 --> 00:02:20,560

corporations and national agencies and

41

00:02:26,470 --> 00:02:22,800

more participate each year

42

00:02:28,309 --> 00:02:26,480

from the first session in 1988 isu has

43

00:02:30,630 --> 00:02:28,319

maintained a truly international

44

00:02:32,470 --> 00:02:30,640

character rotating between some of the

45

00:02:34,150 --> 00:02:32,480

world's most prestigious academic

46

00:02:37,190 --> 00:02:34,160

institutions

47

00:02:39,589 --> 00:02:37,200

each session an average of 135 graduate

48

00:02:41,990 --> 00:02:39,599

level students attend isu for the

49

00:02:44,710 --> 00:02:42,000

intensive 70-day program

50

00:02:46,630 --> 00:02:44,720

they come from over 35 nations and are

51
00:02:49,750 --> 00:02:46,640
specialists in fields as diverse as

52
00:02:51,030 --> 00:02:49,760
computers space geology engineering and

53
00:02:53,110 --> 00:02:51,040
law

54
00:02:55,750 --> 00:02:53,120
isu combines not only students from

55
00:02:57,270 --> 00:02:55,760
different specialities but also students

56
00:02:59,589 --> 00:02:57,280
from different nations

57
00:03:01,110 --> 00:02:59,599
both giants in space and new entrants to

58
00:03:03,509 --> 00:03:01,120
the space frontier

59
00:03:05,350 --> 00:03:03,519
creating a dynamic mix which truly

60
00:03:07,430 --> 00:03:05,360
mirrors the future of human space

61
00:03:09,190 --> 00:03:07,440
activities

62
00:03:12,949 --> 00:03:09,200
oh i've had a wonderful experience here

63
00:03:14,470 --> 00:03:12,959

at isu it's uh i've learned a lot about

64

00:03:16,470 --> 00:03:14,480

life sciences

65

00:03:17,990 --> 00:03:16,480

that i did not know before coming i've

66

00:03:20,149 --> 00:03:18,000

also learned an awful lot about other

67

00:03:21,670 --> 00:03:20,159

engineering areas which are really very

68

00:03:23,830 --> 00:03:21,680

important in the work that i do with

69

00:03:25,270 --> 00:03:23,840

life sciences because you always have to

70

00:03:27,270 --> 00:03:25,280

interface with engineers who are

71

00:03:30,149 --> 00:03:27,280

developing hardware

72

00:03:33,589 --> 00:03:30,159

beyond that i've learned a lot about the

73

00:03:35,030 --> 00:03:33,599

importance of interacting with people at

74

00:03:37,350 --> 00:03:35,040

various levels

75

00:03:39,190 --> 00:03:37,360

and the international approach to that

76
00:03:40,789 --> 00:03:39,200
has probably been the most enlightening

77
00:03:44,789 --> 00:03:40,799
of all

78
00:03:46,869 --> 00:03:44,799
we live together for 10 weeks and

79
00:03:49,750 --> 00:03:46,879
we know each other

80
00:03:53,110 --> 00:03:49,760
very very well we are now in a very very

81
00:03:54,789 --> 00:03:53,120
interesting era because

82
00:03:58,149 --> 00:03:54,799
the cold war

83
00:04:00,550 --> 00:03:58,159
has almost ended and i think this is now

84
00:04:01,670 --> 00:04:00,560
just now the time for the cooperation of

85
00:04:02,789 --> 00:04:01,680
the world

86
00:04:08,630 --> 00:04:02,799
and

87
00:04:10,550 --> 00:04:08,640
catalyst for this kind of activity

88
00:04:13,110 --> 00:04:10,560

realizing the daunting challenge of

89

00:04:15,509 --> 00:04:13,120

building a real university from scratch

90

00:04:18,069 --> 00:04:15,519

the founders of isu decided to develop

91

00:04:20,150 --> 00:04:18,079

the institution in stages

92

00:04:21,509 --> 00:04:20,160

one of these founders todd hawley

93

00:04:23,909 --> 00:04:21,519

explains

94

00:04:26,629 --> 00:04:23,919

isu benefited from that early plan that

95

00:04:28,550 --> 00:04:26,639

we set up that allowed us to to develop

96

00:04:30,550 --> 00:04:28,560

in a staged format

97

00:04:32,950 --> 00:04:30,560

initially under the guise of space

98

00:04:35,830 --> 00:04:32,960

generation foundation then following the

99

00:04:37,030 --> 00:04:35,840

founding conference at mit as the isu

100

00:04:39,030 --> 00:04:37,040

project inc

101
00:04:40,870 --> 00:04:39,040
we were set up to run summer sessions a

102
00:04:42,870 --> 00:04:40,880
fairly simple goal

103
00:04:45,189 --> 00:04:42,880
but beginning to work in the millions of

104
00:04:47,510 --> 00:04:45,199
dollars a year level and get sponsors

105
00:04:49,270 --> 00:04:47,520
from over 100 different locations

106
00:04:51,590 --> 00:04:49,280
now what we're looking at is the next

107
00:04:53,350 --> 00:04:51,600
phase of isu's evolution towards the

108
00:04:55,909 --> 00:04:53,360
permanent campus era

109
00:04:58,390 --> 00:04:55,919
and as the isu organization inc our

110
00:04:59,189 --> 00:04:58,400
third incarnation we're setting out on

111
00:05:01,430 --> 00:04:59,199
that

112
00:05:02,150 --> 00:05:01,440
very very exciting and i think a little

113
00:05:03,270 --> 00:05:02,160

bit

114

00:05:05,510 --> 00:05:03,280

challenging

115

00:05:08,230 --> 00:05:05,520

frontier of education where we will be

116

00:05:10,390 --> 00:05:08,240

pushing the edge

117

00:05:11,830 --> 00:05:10,400

this animation is a model of a large

118

00:05:13,670 --> 00:05:11,840

space station

119

00:05:16,070 --> 00:05:13,680

it can be used to test out the theories

120

00:05:17,909 --> 00:05:16,080

of its designers and will enable them to

121

00:05:19,749 --> 00:05:17,919

prove their concept before actually

122

00:05:21,430 --> 00:05:19,759

bending metal as it's called in the

123

00:05:24,150 --> 00:05:21,440

aerospace world

124

00:05:26,150 --> 00:05:24,160

so too the isu summer sessions have been

125

00:05:27,270 --> 00:05:26,160

a model for the next stage of the isu

126
00:05:29,430 --> 00:05:27,280
project

127
00:05:31,350 --> 00:05:29,440
the development of a full-time permanent

128
00:05:32,550 --> 00:05:31,360
campus system stretching around the

129
00:05:34,550 --> 00:05:32,560
globe

130
00:05:37,029 --> 00:05:34,560
plans call for the opening of the first

131
00:05:39,830 --> 00:05:37,039
campus by 1995

132
00:05:41,909 --> 00:05:39,840
from its central campus isu will manage

133
00:05:44,230 --> 00:05:41,919
and supervise a network of affiliate and

134
00:05:46,550 --> 00:05:44,240
advanced campuses to be developed in

135
00:05:49,350 --> 00:05:46,560
association with the world's very best

136
00:05:50,950 --> 00:05:49,360
universities and research facilities

137
00:05:53,270 --> 00:05:50,960
each of these campuses will be a

138
00:05:55,510 --> 00:05:53,280

specialized working environment

139

00:05:57,670 --> 00:05:55,520

featuring advanced studies and research

140

00:05:59,590 --> 00:05:57,680

in each of the nine areas of study

141

00:06:02,150 --> 00:05:59,600

offered by isu

142

00:06:04,469 --> 00:06:02,160

as year-round operations commence the

143

00:06:06,790 --> 00:06:04,479

isu experience can be offered to greater

144

00:06:08,790 --> 00:06:06,800

numbers of students while studies and

145

00:06:10,550 --> 00:06:08,800

projects can be pursued in much greater

146

00:06:11,990 --> 00:06:10,560

depth and detail

147

00:06:14,309 --> 00:06:12,000

the centers will be staffed by

148

00:06:16,790 --> 00:06:14,319

world-renowned faculty who will be able

149

00:06:18,309 --> 00:06:16,800

to participate in isu often without

150

00:06:19,990 --> 00:06:18,319

leaving home

151
00:06:23,510 --> 00:06:20,000
this breakthrough will be made possible

152
00:06:25,510 --> 00:06:23,520
by the isu net an electronic voice data

153
00:06:28,390 --> 00:06:25,520
video communications and computing

154
00:06:31,110 --> 00:06:28,400
system unlike anything yet available

155
00:06:33,830 --> 00:06:31,120
from his home in sri lanka here is isu's

156
00:06:36,150 --> 00:06:33,840
chancellor arthur c clarke inventor of

157
00:06:39,590 --> 00:06:36,160
the communication satellite and author

158
00:06:41,909 --> 00:06:39,600
of 2001 a space odyssey this course fits

159
00:06:43,270 --> 00:06:41,919
in ideally with the isu's objectives

160
00:06:45,029 --> 00:06:43,280
because even

161
00:06:47,189 --> 00:06:45,039
though you want a permanent campus where

162
00:06:48,870 --> 00:06:47,199
people can meet face-to-face interact

163
00:06:50,550 --> 00:06:48,880

after they've done that

164

00:06:52,309 --> 00:06:50,560

when they're dispersed they can still

165

00:06:55,430 --> 00:06:52,319

interact in a way they could never have

166

00:06:57,510 --> 00:06:55,440

done if they hadn't met personally

167

00:06:58,950 --> 00:06:57,520

so we get the best of both worlds people

168

00:07:01,189 --> 00:06:58,960

will not have to gather together in

169

00:07:03,430 --> 00:07:01,199

large communities for long periods of

170

00:07:06,790 --> 00:07:03,440

time they can meet occasionally and then

171

00:07:09,029 --> 00:07:06,800

they can continue to interact study

172

00:07:10,629 --> 00:07:09,039

through their home consoles wherever

173

00:07:13,270 --> 00:07:10,639

they are

174

00:07:15,350 --> 00:07:13,280

imagine a student or researcher needing

175

00:07:17,749 --> 00:07:15,360

information on a subject will merely

176

00:07:19,749 --> 00:07:17,759

press a few buttons and be face to face

177

00:07:22,469 --> 00:07:19,759

with the top experts in any field of

178

00:07:24,309 --> 00:07:22,479

study anywhere in the world

179

00:07:26,710 --> 00:07:24,319

conferences and classes can be attended

180

00:07:28,790 --> 00:07:26,720

by students and faculty at a fraction of

181

00:07:31,270 --> 00:07:28,800

the cost of physical travel

182

00:07:33,110 --> 00:07:31,280

and students can interact with experts

183

00:07:36,150 --> 00:07:33,120

in over-the-shoulder experiments

184

00:07:38,790 --> 00:07:36,160

although thousands of kilometers apart

185

00:07:41,670 --> 00:07:38,800

isu net will feature a global electronic

186

00:07:43,430 --> 00:07:41,680

space library providing isu students

187

00:07:45,270 --> 00:07:43,440

access to the vast amount of space

188

00:07:46,230 --> 00:07:45,280

information and data which already

189

00:07:48,230 --> 00:07:46,240

exists

190

00:07:50,469 --> 00:07:48,240

and creating a clearinghouse for the

191

00:07:52,710 --> 00:07:50,479

huge amounts of new data we will gain as

192

00:07:54,390 --> 00:07:52,720

we move outward into space in the next

193

00:07:56,550 --> 00:07:54,400

century

194

00:07:58,869 --> 00:07:56,560

isu is working with top authorities from

195

00:08:02,790 --> 00:07:58,879

academia to develop the world's first

196

00:08:05,110 --> 00:08:02,800

mss or master in space studies degree

197

00:08:07,270 --> 00:08:05,120

in the 21st century it will become a

198

00:08:09,510 --> 00:08:07,280

symbol of excellence recognized around

199

00:08:11,189 --> 00:08:09,520

the world and those who have achieved it

200

00:08:13,110 --> 00:08:11,199

will certainly number among tomorrow's

201
00:08:15,589 --> 00:08:13,120
space pioneers

202
00:08:18,950 --> 00:08:15,599
as a first step toward this dream

203
00:08:20,950 --> 00:08:18,960
isu has created a founders association

204
00:08:23,270 --> 00:08:20,960
which is accepting grants and donations

205
00:08:25,110 --> 00:08:23,280
from visionary individuals and groups

206
00:08:26,390 --> 00:08:25,120
who want to be a part of this historic

207
00:08:28,629 --> 00:08:26,400
venture

208
00:08:30,790 --> 00:08:28,639
with contributions of one thousand us

209
00:08:33,110 --> 00:08:30,800
dollars or more they are putting their

210
00:08:35,589 --> 00:08:33,120
money where their dreams are and taking

211
00:08:37,670 --> 00:08:35,599
a stand for that future

212
00:08:39,909 --> 00:08:37,680
these critical donations are being used

213
00:08:41,909 --> 00:08:39,919

to plan and design the first isu

214

00:08:45,269 --> 00:08:41,919

permanent campus

215

00:08:47,670 --> 00:08:45,279

isu's first president george van rate

216

00:08:48,790 --> 00:08:47,680

here we have one

217

00:08:51,110 --> 00:08:48,800

cause

218

00:08:53,430 --> 00:08:51,120

that does not look at

219

00:08:56,710 --> 00:08:53,440

let's call it damage control

220

00:08:58,550 --> 00:08:56,720

that looks at creating the future making

221

00:09:00,070 --> 00:08:58,560

the future better

222

00:09:05,829 --> 00:09:00,080

for you

223

00:09:07,350 --> 00:09:05,839

that come after us so why not support it

224

00:09:09,509 --> 00:09:07,360

thanks to early contributions by

225

00:09:11,350 --> 00:09:09,519

founders association members the

226

00:09:12,630 --> 00:09:11,360

university's campus planning is well

227

00:09:15,350 --> 00:09:12,640

underway

228

00:09:17,829 --> 00:09:15,360

curriculum faculty requirements academic

229

00:09:20,389 --> 00:09:17,839

standards and the technologies needed to

230

00:09:22,949 --> 00:09:20,399

make it a world educational showcase are

231

00:09:24,710 --> 00:09:22,959

being discussed and developed today the

232

00:09:26,550 --> 00:09:24,720

future is coming

233

00:09:27,750 --> 00:09:26,560

it is up to us to make of it what we

234

00:09:29,910 --> 00:09:27,760

will

235

00:09:32,310 --> 00:09:29,920

too often we fall victim to songs of

236

00:09:35,670 --> 00:09:32,320

doom and warnings of limitations about

237

00:09:38,230 --> 00:09:35,680

what we as humans can do or dream

238

00:09:40,790 --> 00:09:38,240

isu stands in direct opposition to this

239

00:09:43,190 --> 00:09:40,800

philosophy a place where caring

240

00:09:45,269 --> 00:09:43,200

understanding and a passion to know what

241

00:09:49,750 --> 00:09:45,279

is unknown brings out the best of what

242

00:09:54,070 --> 00:09:51,509

if ever in our history there was a time

243

00:09:55,509 --> 00:09:54,080

to build an institution like isu

244

00:09:57,829 --> 00:09:55,519

this is it

245

00:09:59,509 --> 00:09:57,839

to date over 500 students have passed

246

00:10:01,910 --> 00:09:59,519

through the doors of the isu summer

247

00:10:04,550 --> 00:10:01,920

sessions they entered as representatives

248

00:10:05,910 --> 00:10:04,560

of nations they leave as representatives

249

00:10:09,590 --> 00:10:05,920

of our species

250

00:10:12,230 --> 00:10:09,600

and isu does represent us all

251
00:10:14,630 --> 00:10:12,240
no matter where we are or what we do the

252
00:10:16,870 --> 00:10:14,640
work of the graduates of isu will affect

253
00:10:18,710 --> 00:10:16,880
our lives and those of our children as

254
00:10:21,269 --> 00:10:18,720
they assume the leadership of our space

255
00:10:23,269 --> 00:10:21,279
activities in the 21st century

256
00:10:25,509 --> 00:10:23,279
but your help is needed

257
00:10:27,509 --> 00:10:25,519
your contribution to this great cause

258
00:10:31,509 --> 00:10:27,519
will help us give a home to what is best

259
00:10:35,750 --> 00:10:32,790
the isu

260
00:10:38,069 --> 00:10:35,760
is now training the engineers

261
00:10:39,750 --> 00:10:38,079
the scientists

262
00:10:42,389 --> 00:10:39,760
and the explorers

263
00:10:43,590 --> 00:10:42,399

who are going to tackle the immense

264

00:10:46,470 --> 00:10:43,600

challenge

265

00:10:48,150 --> 00:10:46,480

of exploring and then exploiting this

266

00:10:50,550 --> 00:10:48,160

new ocean and the

267

00:10:52,470 --> 00:10:50,560

continents scattered across it the

268

00:10:54,150 --> 00:10:52,480

curtain is going up

269

00:10:56,470 --> 00:10:54,160

on this

270

00:10:57,750 --> 00:10:56,480

wonderful awe-inspiring play

271

00:10:59,350 --> 00:10:57,760

and the

272

00:11:01,910 --> 00:10:59,360

members of the isu

273

00:11:03,430 --> 00:11:01,920

are going to be the actors

274

00:11:05,269 --> 00:11:03,440

from a learning experience which

275

00:11:07,829 --> 00:11:05,279

stretches around the globe

276

00:11:09,590 --> 00:11:07,839

isu plans to actually become a true

277

00:11:11,430 --> 00:11:09,600

space university

278

00:11:13,430 --> 00:11:11,440

building its first orbital research

279

00:11:17,110 --> 00:11:13,440

facilities

280

00:11:19,829 --> 00:11:17,120

for isu the trek has just begun

281

00:11:22,870 --> 00:11:19,839

where it will lead no one knows

282

00:11:25,509 --> 00:11:22,880

but if it is to lead anywhere at all isu

283

00:11:27,269 --> 00:11:25,519

needs your help now so that tomorrow we

284

00:11:28,630 --> 00:11:27,279

can give our children the future they

285

00:11:30,310 --> 00:11:28,640

deserve

286

00:11:32,310 --> 00:11:30,320

seldom in history does a chance come

287

00:11:34,630 --> 00:11:32,320

along to make a real difference

288

00:14:52,069 --> 00:11:34,640

you have that chance now

289

00:14:52,079 --> 00:14:54,870

sorry

290

00:15:01,509 --> 00:14:56,629

okay aren't there any moment you'd like

291

00:15:06,790 --> 00:15:03,829

sitting here beside the indian ocean the

292

00:15:07,990 --> 00:15:06,800

largest unexplored body of water on this

293

00:15:09,910 --> 00:15:08,000

planet

294

00:15:12,870 --> 00:15:09,920

seems an appropriate place to talk about

295

00:15:15,269 --> 00:15:12,880

the international space university which

296

00:15:18,710 --> 00:15:15,279

is concerned with the next great age of

297

00:15:20,870 --> 00:15:18,720

exploration the exploration of space

298

00:15:22,389 --> 00:15:20,880

and the isu is going to do that by

299

00:15:24,870 --> 00:15:22,399

training the

300

00:15:26,790 --> 00:15:24,880

engineers scientists

301
00:15:28,230 --> 00:15:26,800
and the explorers who

302
00:15:29,430 --> 00:15:28,240
during the next century you're going to

303
00:15:31,670 --> 00:15:29,440
go out

304
00:15:33,430 --> 00:15:31,680
and explore first the moon and then i'm

305
00:15:35,590 --> 00:15:33,440
sure mars

306
00:15:37,910 --> 00:15:35,600
the moons of jupiter and all these

307
00:15:40,310 --> 00:15:37,920
strange and exotic places

308
00:15:41,829 --> 00:15:40,320
even stranger than those on this planet

309
00:15:42,949 --> 00:15:41,839
which are there waiting

310
00:15:45,990 --> 00:15:42,959
for

311
00:15:47,990 --> 00:15:46,000
the future of the human race to

312
00:16:06,389 --> 00:15:48,000
develop on a stage greater than anyone

313
00:16:10,389 --> 00:16:08,470

sitting here by the side of the indian

314

00:16:12,710 --> 00:16:10,399

ocean the

315

00:16:14,150 --> 00:16:12,720

largest unexplored bodybuilder in this

316

00:16:16,069 --> 00:16:14,160

planet

317

00:16:18,949 --> 00:16:16,079

seems an appropriate place to talk about

318

00:16:21,269 --> 00:16:18,959

the international space university

319

00:16:21,829 --> 00:16:21,279

which is

320

00:16:24,150 --> 00:16:21,839

of concerned with

321

00:16:26,629 --> 00:16:24,160

larger scale

322

00:16:28,710 --> 00:16:26,639

the ocean of space

323

00:16:30,710 --> 00:16:28,720

is infinitely larger

324

00:16:32,550 --> 00:16:30,720

than that of

325

00:16:33,829 --> 00:16:32,560

the scene

326
00:16:35,509 --> 00:16:33,839
the isu

327
00:16:37,110 --> 00:16:35,519
is now training

328
00:16:39,189 --> 00:16:37,120
engineers

329
00:16:40,790 --> 00:16:39,199
scientists

330
00:16:43,430 --> 00:16:40,800
and the explorers

331
00:16:44,629 --> 00:16:43,440
who are going to tackle the immense

332
00:16:47,509 --> 00:16:44,639
challenge

333
00:16:49,189 --> 00:16:47,519
of exploring and then exploiting this

334
00:16:51,749 --> 00:16:49,199
new ocean and

335
00:16:53,110 --> 00:16:51,759
continents scattered across it

336
00:16:54,310 --> 00:16:53,120
ours

337
00:16:55,910 --> 00:16:54,320
first moon

338
00:16:57,829 --> 00:16:55,920

and mars

339

00:16:59,350 --> 00:16:57,839

then probably the

340

00:17:01,430 --> 00:16:59,360

giant moons

341

00:17:05,429 --> 00:17:01,440

jupiter and saturn which are worlds in

342

00:17:09,909 --> 00:17:08,470

huge stage on which the future drama

343

00:17:11,590 --> 00:17:09,919

of the human race

344

00:17:13,429 --> 00:17:11,600

is going to be played

345

00:17:14,949 --> 00:17:13,439

we're at the beginning

346

00:17:16,549 --> 00:17:14,959

is going up

347

00:17:20,789 --> 00:17:16,559

on this

348

00:17:20,799 --> 00:17:33,590

is

349

00:17:37,590 --> 00:17:35,510

when people ask me why

350

00:17:40,310 --> 00:17:37,600

they should support the isu

351
00:17:43,750 --> 00:17:40,320
as opposed to the innumerable other good

352
00:17:45,750 --> 00:17:43,760
causes repeating all the time

353
00:17:48,070 --> 00:17:45,760
i'm reminded of the beginning of the

354
00:17:50,630 --> 00:17:48,080
great age of exploration and very few

355
00:17:53,029 --> 00:17:50,640
people like columbus you know appeal to

356
00:17:54,549 --> 00:17:53,039
royal patrons and stuff we think we

357
00:17:56,390 --> 00:17:54,559
under good things will give us the money

358
00:17:57,750 --> 00:17:56,400
to build the ships and we'll open up a

359
00:17:59,590 --> 00:17:57,760
new world

360
00:18:00,630 --> 00:17:59,600
and of course that's exactly what

361
00:18:02,470 --> 00:18:00,640
happened

362
00:18:04,789 --> 00:18:02,480
what would our world be like now if

363
00:18:07,270 --> 00:18:04,799

columbus hadn't seen support then

364

00:18:09,029 --> 00:18:07,280

because eventually we would have

365

00:18:16,470 --> 00:18:09,039

started a new world

366

00:18:16,480 --> 00:18:44,950

what do you think