

# Citizen Engineer

Making a difference

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# Engineering

# Science, technology & society

Science,  
technology  
& **society**

How can we  
help society?

How can we  
shape the future?

We are  
uniquely placed

**We are smart**



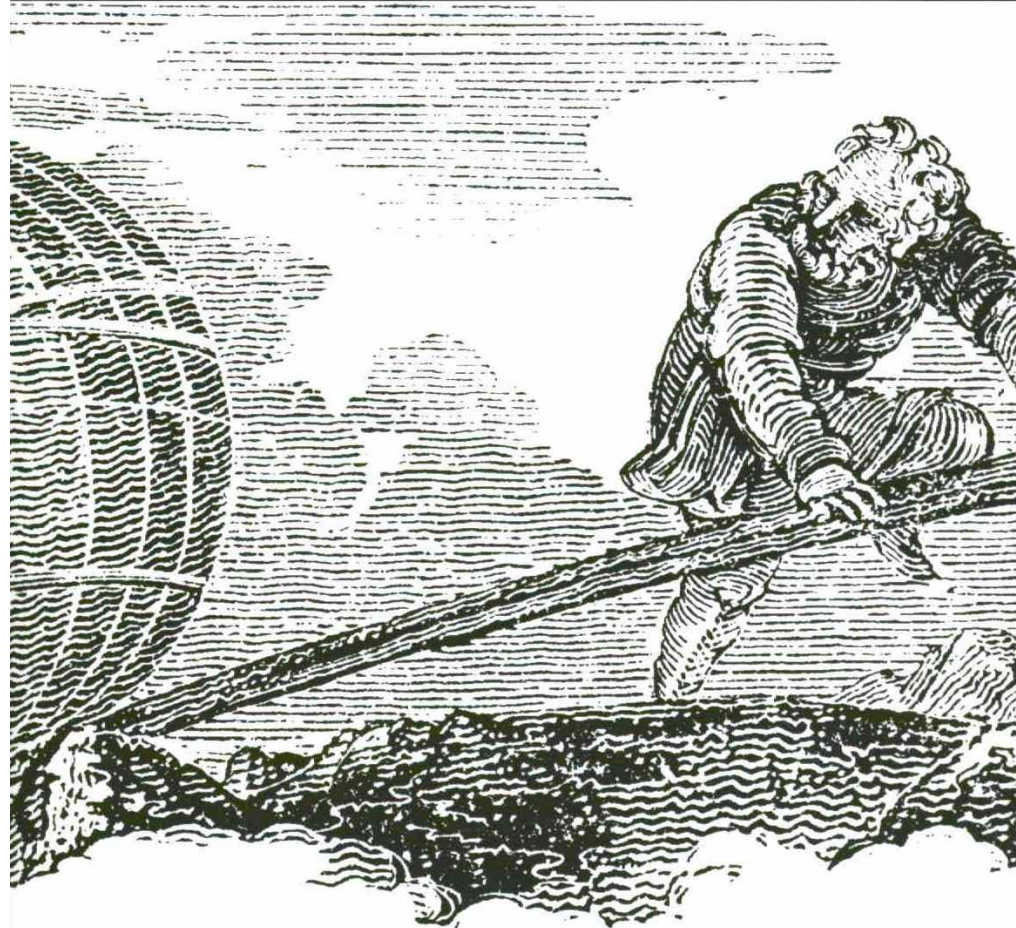
**We have skills**

We have a  
responsibility

David Douglas and Greg Papadopoulos with John Boutelle

# CITIZEN Engineer

A HANDBOOK FOR SOCIALLY RESPONSIBLE ENGINEERING



“Δῶς μοι πᾶ στῶ καὶ τὰν γᾶν κινάσω”

“Give Me a Place to Stand and I Will Move the Earth”

How can we  
shape the future  
of society and  
the world?

We engage

We communicate

We lead





I don't have  
answers

But I do have  
suggestions...

*Children*

Nurture their  
innate curiosity

Foster their  
emerging creativity

Be a role model

Help  
the IT teachers  
at school

Inspire  
the IT teachers  
at school



Give a child  
a Linux Live CD

Teach them  
how to program

Help them  
build a game

Show them  
how to write  
a web app

Teach them  
how to use an  
Arduino

Give them a  
MindStorms kit...

Then help them  
build a robot  
with a RaspberryPi

*Community*



Set up websites  
for local  
community groups

Run courses at your  
neighbourhood  
community house

Donate PCs to local  
charities, NGOs and  
non-profits

Be the IT support  
for your local  
non-profit

Get involved in  
politics...

So you can help  
determine policy

**Make politicians  
accountable**

Write submissions  
for government  
strategy papers



*Our rights*

Lobby to protect...

...our freedoms

...our privacy

...our intellectual  
property

...our digital rights

Help with projects:  
TOR, GnuPG,  
SSH, PyCrypto...

Creative commons  
rather than  
walled gardens



# *Computing*

Contribute to  
open source  
projects

Help your local  
user groups

No local  
user group?

**Start one!**

Educate yourself...

And then  
educate others

# Speak at conferences



Blog:  
preach, advocate,  
teach, persuade,  
challenge

*The world*

Reduce,  
reuse, recycle

You may not solve  
climate change...

or cancer...

or peak oil...

You can help  
write the software  
for scientists

Write software  
that makes a  
difference



# Random hacks of kindness



I believe...

One person  
can make  
a difference

A community  
can change  
the world

Thank you