

WHAT A PIECE OF WORK...

- A monologue by Alex Elliott  
In conjunction with Newcastle University

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The CANDO (Controlling Abnormal Network Dynamics using Optogenetics) project is a world-class, multi-site, cross-disciplinary project to develop a cortical implant for optogenetic neural control in people with focal epilepsy.

The implant will modulate abnormal activity and prevent the development of epileptic seizures, providing precisely timed stimulation by continuously monitoring brain waves via implanted electrodes and modifying them via implanted light sources. This requires that some cells within the brain are genetically altered using a safe virus to make them sensitive to light. The goal is to create a first-in-human trial in patients with focal epilepsy.

Operating Theatre has been making work about health and well-being for 15 years, working with medical schools, health care providers, charities, researchers and industry to deliver heartfelt drama that aims to change how people think about health.

Their aim in the project is to respond, as theatre practitioners, to the challenges and opportunities that the CANDO project presents.

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## WHAT A PIECE OF WORK...

"What a piece of work is a man, how noble in reason, how infinite in faculties, in form and moving how express and admirable, in action how like an angel, in apprehension how like a god! the beauty of the world, the paragon of animals— and yet,"

**Noble in reason?** Noble in reason— What does that really mean? When you look around. Considering what we're capable of. The way we make decisions about the world, about the lives of others, can we honestly say these decisions are being made from a position of **nobility**.

Do we want clean water or dirty wars? Do we want equality or is inequality more useful for some? Some seem happy to gorge themselves whilst others starve— Is this nobility?

Do we really want humanity to progress?

Who do we want to decide, who do we want to shape our future? Do we share a common vision for humanity?

Who gets to live, who gets to die. Are those decisions being made out of nobility? And is this something that we think about enough?

We can justify just about anything we want to, if it suits us, can't we?

We are the ultimate justifiers of our actions.

Some would say we are beginning to reap the consequences of listening to the wrong voices, of asking the wrong questions, of ignoring the signs.

Of seeing the world as we want it to be, and not how it really is.

**How infinite in faculties?** They are impressive our mental and physical powers. But if they lead us to imagine ourselves to

be more than we are, if they lead us to arrogance, to hubris, what then? We have always wanted to take on the world. Harnessing nature, replacing hands with tools, horses with machines, replacing ourselves with machines. In the process we have ravaged the earth, not always knowingly, or wilfully, but we are where we are.

Admirable in action- we can save lives, we can reduce suffering, we can ease pain, we know what has to be done. We have produced noble men and women, we have done many great things.

But to call ourselves angels, feels like a bit of a stretch. An angel, a god?  
I think not.

What makes us human are our aspirations...what took us out of the caves our awareness of ourselves as beings in the world. Knowing what we are. What we could be. All of this sets us apart.

We are not designed to remain passive, inert players in the game of life.

Only where does it take us? Do we know where we are going? Where things might lead. Surely Gods should know that.

We have created tools, machines to carry out the work our bodies once had to do.

Now we are creating tools to carry out the work done by our minds. Tools that will regulate our bodies and that will alter how we think and how we feel about the world.

Algorithms will spot my cancer more efficiently, more certainly and more quickly than any doctor. Implanted Devices will detect anomalies, correct imbalances, report non-compliant behaviours. We will all be encouraged to have a black box. This is just the next step in human evolution, one which has stretched back millions of years and will stretch the same way into the future.

The history of our species is a stream of discoveries, which have allowed us to progress and direct the course of our evolution. Human enhancement is an inevitable part of that process.

Will it herald a new age, the beginning of trans- humanism, the next step? If it is genuine progress and desirable, then who gets to decide who is enhanced?

Who will be able to future proof themselves, to be more like gods

What part will money play? Very few will be able to afford the upgrades I suspect.

Who decides then who is of value? Who is worthy? Governments, corporations? Who will police all of these emerging technologies? Who will keep us safe?

What will our children and grandchildren and those beyond, look like? What will that piece of work be? More noble in reason, more admirable in action, more like an angel, like a god?

We can't escape these questions any longer. We can't leave it to others to decide, we can't just watch as the future unfolds before our eyes.

We are all part of the Great Puzzle.