BCS Challenges: Capability

IT Capability for the good of society

Summary

The impact of decisions made by professionals in the digital / IT domain is now a major determining factor in how our society operates. BCS is outlining – for discussion – the goals our communities should be working towards in order to make IT good for society. We want those making the decisions that affect all of us to do this with knowledge of the impacts, and the right intentions. We want them to be capable of turning those intentions into outcomes. We want those employing or commissioning them to be able to do so with trust. We want a better environment for everyone as a result.

Our concern is that a lack of shared action and understanding of what really constitutes 'good people' and 'good things' by all parties may be resulting in systemic dysfunction: lack of development, poor clarity over roles, limited empowerment to be socially responsible, and unclear requirements into education and training are all impeding societal benefit.

By working together as a community, by investigating the issues and galvanising people to take action, we believe we can positively affect the ecosystem to deliver better for society. We are calling on those who share our values and can play a role in this – however large or small - to get involved.

Why?

Today, every single person living in the UK is affected by technology whether they like it or not. From an elderly person receiving medical care to a young child entering school for the first time, we all rely on modern technology to live our lives. This means that the world we live in is increasingly defined by the results of decisions that are made by people working in information and technology.

IT that delivers what it promises not only makes business more efficient and effective, but it enables much of what we care about – health and care, education, commerce, employment, entertainment. Decisions can affect whether a person without sight is emancipated or imprisoned by their technology. The impact of bad decisions can be fear, anxiety, material loss and other harms – as well as a loss of trust across society. Reliable and easy to use information and technology can help us to feel free, in control, and happier[1].

Technology is created and applied by people, to other people. The ultimate impact of a decision is often hard to anticipate, yet many decisions taken over information and technology have broadly predictable effects on people, and many more can be understood through testing and enhancement.

The fundamental premise of this challenge is that the way people tackle information and technology decisions can be mapped, understood, and driven by a broader awareness of social impact and intention. Our society will, over time, be defined by the extent to which we can align our information and technology to our individual, organisational and social goals. So, to make IT good for society, we need:

[1] The Information Divided: Why IT Makes You 'Happier' Prepared for BCS, The Chartered Institute for IT by Trajectory Partnership September 2010 http://www.bcs.org/upload/pdf/info-dividend-full-report.pdf

Good people, in the right role, as part of a good team, to do good things for society.

Good people

'Good' is a very subjective term, but against our societal context we can start to define and expand our picture of what we can objectively describe as 'good'. We can also challenge and reject ideas – conscious or unconscious – that are not the same as 'good'. With this in mind, we have developed a starting point based on the following assertions:

We can describe someone as 'good' when they have both good intention and good capability. Having good intentions but without the ability to act on these is nearly as dangerous as having capability without the right intentions.

Intention

A good person is someone who takes responsibility for understanding the impact of their decisions on colleagues, customers, the public, the environment and the communities in which they operate. Their intention is to act ethically, in line with their direct commitments to others as well as their impact on third parties.

Capability

Creating, applying and using information and technology to a deliberate outcome requires capability. The most fundamental capability required is to learn and adapt, dealing with change. Beyond that is a set of faculties and behaviours appropriate to the desired outcome.

Transient knowledge and skills vs principles and approaches

A specific set of knowledge or skills does not encompass 'good', particularly where change is a constant factor. In information and technology there are principles underpinned by science and methodologies with broad applicability. Some of these take a considerable investment to develop, understand and learn how to apply. These are in stark contrast to transient knowledge and skills that, while necessary, are the result of capability and learning environment.

The Right Role

The right role is not only one where the individual can contribute to doing 'good things', but also one where they are empowered to be a 'good person', building and maintaining their capability and supporting their intentions. The right role will include a learning environment that provides and updates transient knowledge and skills. The right role is one that matches a 'good' person into a team into which they can contribute to the desired outcomes both for that organisation and for wider society. There will be a cultural fit, and the individual will find themselves in a diverse team with personalities and capabilities complementary to their own.

A Great Team

A great team is one where the culture, diversity, mix of capability, development and support empowers good people to do good things (as defined below). A great team also builds up capability in the members of the team, and has a culture of doing the right thing and considering the impact on society. Digital professional skills may also be dispersed amongst this team, so while individuals may fulfil a specific role, there will in practice be no dividing line between those with digital professional skills and those from other disciplines; teams will be multi-disciplinary, and the same may increasingly be true of individuals.

Good things

A great team delivers the right thing for their organisation and context in a timely and appropriate manner, but also considers and takes responsibility for what happens to people as a consequence. This includes 'on time, on budget' but goes beyond that; considering what's best within time and budget and what is necessary ethically. For example, consideration of impact on anyone affected by information and technology decisions is *always* necessary. However considering the impact of alternative approaches to solving the same problem with equal effort, achieving the same required results may in fact lead to a better overall societal impact. Choosing to deliver against organisational requirements in such a way that will also bring associated societal benefits (delivery against which will probably be improved as well) is ultimately a good thing.

Validating, mapping and understanding our goal

Each definition of this system above needs to be developed and validated so that we can understand what it is that leads to the overall societal outcome from a solid base of evidence.

Measuring progress towards the goal

Because of the nature of this goal, it will never complete. However, measures can be developed that track inputs and outputs to show progress based on the understanding of the goal and barriers that exist.

What are the barriers / issues?

The following evidence of barriers to this process exists:

Documented skills gaps provide evidence of dysfunction in the system; there is no shortage of people, only a shortage of the support and environment to build them up into being good people. This involves a responsibility to create the right learning environment, team and development for teams. 72% of large firms and 49% of SMEs report skills gaps with their tech specialist workforce according to The Tech Partnership Employers Insight 2015[2].

BCS members have expressed concern over many aspects of the recruitment progress. Many believe that recruiters simply don't understand the positions they are recruiting for and simply look for keywords on a CV to identify their candidates. All too often generic job descriptions are sent out via a portal or through an administrator working in HR and that's where the problems start. Others mention how they are not deemed appropriate for jobs because of algorithm software that are crude in how they grade good CVs. A 2015 BCS survey found that the aspects that participants feel are working least well are: HR departments' understanding of IT skills requirements (23%) and recruitment agencies matching IT skills requirements to candidates (19%).

This evidence indicates that the system is not well understood, and that there is dysfunctional behaviour. Our concern is that a lack of shared action and understanding of 'good people' and 'good things' by all parties may be resulting in systemic dysfunction: lack of development, clarity over roles, empowerment for social responsibility, and unclear requirements into education and training are all impeding societal benefit.

The evidence and insight so far gathered indicates that participants in this ecosystem apportion fault for dysfunction with other participants; it is not clear to participants what they should expect from others or deliver to others in order to enable the right outcomes. This indicates the potential for further research, and actions to change the outcomes for all parties.

Next steps

Further iterations through:

- Community discussion; broad, focused expert workshops
- Review of existing research, primary research to validate assumptions and test hypotheses.

Beyond these next steps, we will look at the key issues that emerge, and develop with the broad community and experts, solutions to Make IT Good for Society – and monitor the result.

[2] Tech Insights: The Digital Economy, The Tech Partnership, March 2015
https://www.thetechpartnership.com/resources/