

Number

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Title	Summary Note (SN) for D4.2
Subtitle	Ethical aspects of advanced ICTs

PROBLEM	<input type="checkbox"/>	SOLUTION	<input type="checkbox"/>	Research Note	<input checked="" type="checkbox"/>	Selected Annotation	<input type="checkbox"/>
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Categories: | | |

Summary:

This note provides a summary of key ethical issues associated with visions of advanced ICTs, and takes particular issue with the role of sociotechnical imaginaries in governance.

CONTEXT

Visions of the future have always had rhetorical, performative and generative roles in technology development, however, there is evidence of a ‘strategic turn’ in the latter half of the 20th century. Innovation policies and strategic research agendas are increasingly more explicit in their promising and cultivation of views. They build expectations with resonance in what has become the dominant social-cultural and political sentiment that science and technology will inevitably solve societal, environmental and existential ills (European Commission, 2010a; European Commission, 2010b; European Commission, 2011; MoD Strategic Trends Programme, 2010; Aarts and Grotenhuis, 2009; Aarts and Encarnação, 2006; Nordmann, 2004; Bibel et al, 2004; Roco and Bainbridge, 2002; ISTAG, 2001).

Visions of the future serve increasingly as research and development guidelines and hyperbolic expectations have intensified in late modernity. In other words, new innovations are promoted, planned and governed on the basis of promised futures which are always contestable and the consequence is a deepened divide between wishful enactment and whether promises are actually delivered or even possible.

The innovation domains that have come under scrutiny to-date are largely centred on advances in biotechnology, nanotechnology, genomics and medical technologies more generally, as well as economics (e.g. Pollock and Williams, 2010; Selin, 2008; Borup et al, 2006; Brown and Michael, 2003; Brown et al, 2000). However, many of the same concerns can be raised about innovation practices that seek to resurrect expectations around advanced ICTs, in particular those depending on yet-to-be-achieved breakthroughs in artificial intelligence (AI) research. The case of advanced ICTs is unique in the sense that most other technologies and technology convergence depend on the development of ICTs as integral to advances in other areas. But the promise of machine intelligence is highly problematic, in particular, how to maintain clarity between what are soft and hard versions. In this respect, AI research has been confronted for decades by anthropologists and philosophers (e.g. Suchman, 2007; Dreyfus, 1992; Forsythe, 2001; also Bell and Dourish, 2007; Barbrook, 2007), and the case of Aml research and development to-date is ideal to better understand how the dynamics of expectations are enacted, performed and maintained—about credibility and the role of visionary work in managing contingencies, disappointments and failure (Aarts and Marzano, 2003; Aarts and de Ruyter, 2009; Aarts and Grotenhuis, 2009).

FACTS

Ethical frameworks for the governance of science and technology typically rely on normative judgements about values, rights, liberties, the good life and what ought to be, but they are also increasingly in need of empirical knowledge of morality, attitudes and orientations in real-life situations. The *ICTethics* project takes lessons from the contentious history of bioethics, originating in medical ethics and applied moral philosophy with growing interest in pressing problems of the day. While bioethics has drawn from European utilitarianism and Rawlsian pragmatism, the postmodern turn in US pragmatism has made impossible conventional theorizations on justice and equality. When moral philosophy withdraws from real-world problems we see a shift from theory to frameworks and, increasingly, reliance on the persuasiveness of argumentation as bioethicists have played on both liberalism and consequentialism.

COMMENTS

A need for ethical reflection and understanding of morality presupposes conflict and requires dedication to questions of who is in conflict and whose values are at stake. Much less attention however, is devoted to the question of what the bioethics or *ICTethics* ought to be ethics of. Ethics of new-emerging technologies tend to take the technology in question at face value, even if it does not (perhaps never will) exist except in scenarios of uncertain futures. Accordingly, the objects of reflection tend to be limited to the potential impacts or outcomes for the lives and liberties of those who are imagined as affected or afflicted *if* the technology is realised at some undeclared future date.

Although 'downstream' engagement of this order helps to sort out deeply problematic issues of impact and outcomes, it is inadequate in laying the foundations for effective ethical frameworks in an era of rhetorically elevated expectations and uncertain futures.

1. Critical engagement with expectations and promises of visionaries and research leaders is lacking.
 - How well are promises and expectations understood by policy-makers, ethical, legal and social expertise?
 - How well are technically and operationally relevant matters understood?
 - How are sociotechnical imaginaries mobilised and new technologies constructed (drawing on STS)?
 - How well are the boundary areas understood, between wishful enactment and what is eventually achievable?
2. Critical examination of the emerging new economies is lacking.
 - Which economic assumptions can be said to underpin strategic research agendas and visionary work?
 - Which economic assumptions underpin recent innovation policies?
 - What is the role (and consequence) of competitiveness as a social value?
3. Institutionalised ethics are limited in engaging professional ethicists as well as publics:
 - How are problems actually framed and by whom?
 - Which types of issues are typically selected for reflection and debate?
 - How can we overcome the shortcomings of presuppositions about rationality and agency that go into the construction of participants in debates: 'the public', 'the citizen', 'the patient' the 'expert'?
4. Social-cultural innovations and endogenous behaviour changes are largely overlooked
 - How do attitudes, concerns and orientations change over time?
 - What are the effects of behaviour change for public-private partnerships and organisational operations?

5. It has become increasingly important to involve individuals and groups in the design and development of the new-emerging technologies -i.e., in matters of usability and usefulness. It is unlikely however, that decisions on regulating ICT advancements will improve with greater inclusion of lay knowledge. Democratic societies do not have the mechanisms for all people to express their needs and concerns, or to have their insights included in the early stages of strategic technology development. The official emphases on productivity, profitability, image and performance also give rise to suspicion that no institution holds genuine interest in protecting and improving lives. Dominant visions and opinions are typically generated and cultivated by those with prominent power and influence while it is very difficult for anyone to actually 'know' the risks and the benefits in the here-and-now—a condition that will continue to challenge the expectations of how ICTs will evolve over time.
6. Ethics of socio-technical imaginaries dictate that attention should be devoted to the politics of decision-making, innovation policy development, visionary work, the involvement of industries and new economies, and how new bodies of knowledge and operational expertises are constructed (see also von Schomberg, 2011, von Schomberg, 2007, Liberatore and Funtowicz, 2003).
7. Pragmatism dictates that attention should be devoted to weeding out wishful enactments from what can realistically be delivered, and to engage in new developments with prudence, precaution and accountability in tackling a host of concerns relating to the question of how best to democratise new innovations, as well as a host of human dignity and rights issues associated with their deployment.