



Responsible Research and Innovation:

The Role of Privacy and Ethics in an Emerging Framework

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Why RRI and Why Now?

- Reliance on R&D to solve “grand challenges”
- Fragmentation of authority
- Globalisation
- Uncertainty
- Process / Product
- Lack of legitimacy of research funding?



Definitions of RRI

RRI is a **transparent, interactive** process by which societal actors and innovators become **mutually responsive** to each other with a view to the (ethical) **acceptability, sustainability** and **societal desirability** of the innovation process and its marketable products. (von Schomberg, 2011)



Definitions of RRI

- RRI is about trying to get better at **anticipating problems**, taking into account wider social, ethical and environmental issues and being able to create flexible and adaptive systems to deal with these **unintended consequences**. This is sometimes called 'Anticipatory Governance'. (Sutcliffe, 2011)
- Duty of care for **future outcomes** of current creative processes. (Owen, 2012)



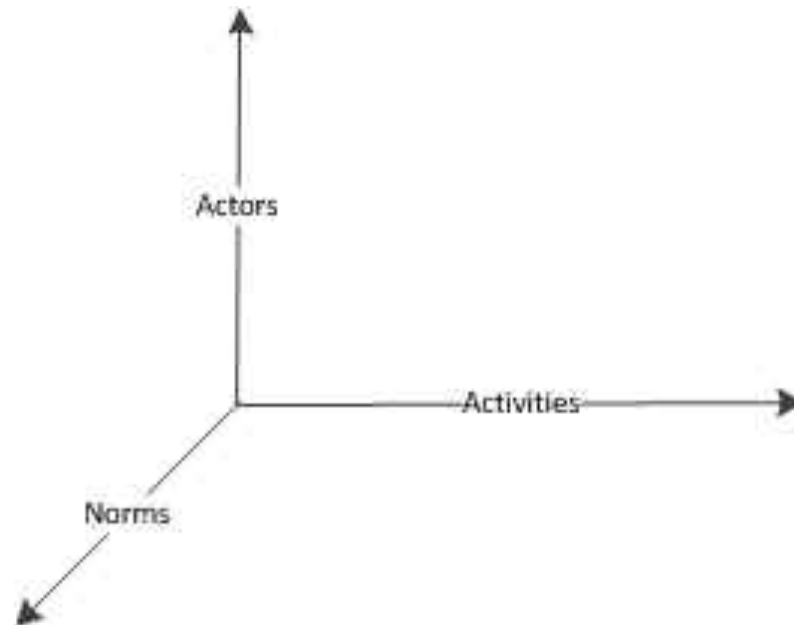
http://www.nanopaprika.eu/profile/0egmofrij9vqm?xg_source=activity



http://business-school.exeter.ac.uk/about/whoswho/index.php?web_id=Richard_Owen

RRI as a Meta-Responsibility

- RRI as a responsibility for the shaping, maintenance, development and coordination of existing responsibilities with a view to enriching research and innovation processes.



Activities of RRI

- Risk management



<http://www.guardianconsultants.co.uk/risk.html>

Activities of RRI

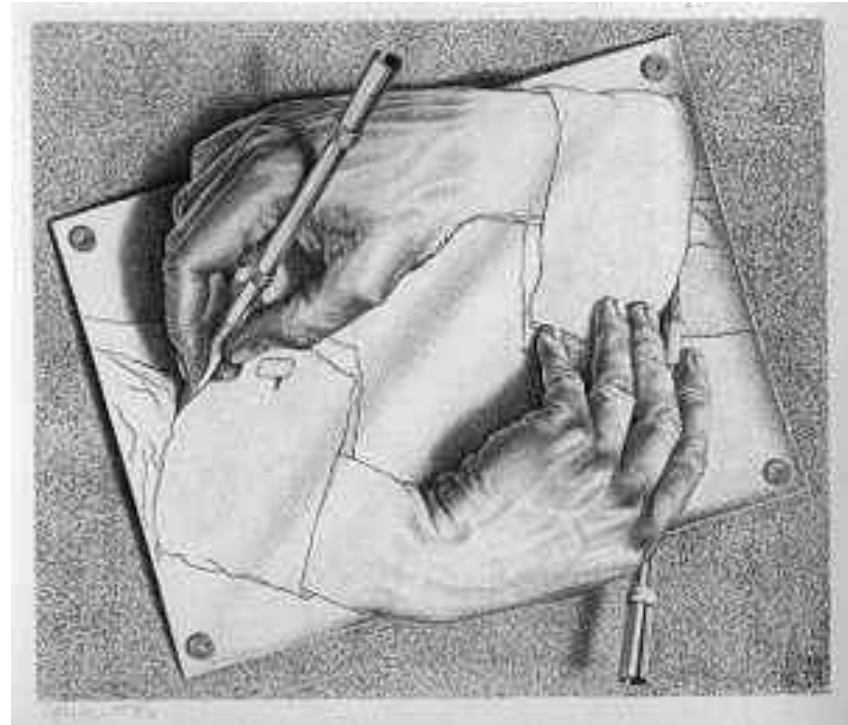
- Risk management
- Ethics review



<http://cometbranding.com/general/so-what-does-ethics-have-to-do-with-social-media-anyway-review-of-prsa-2009-panel-discussion/>

Activities of RRI

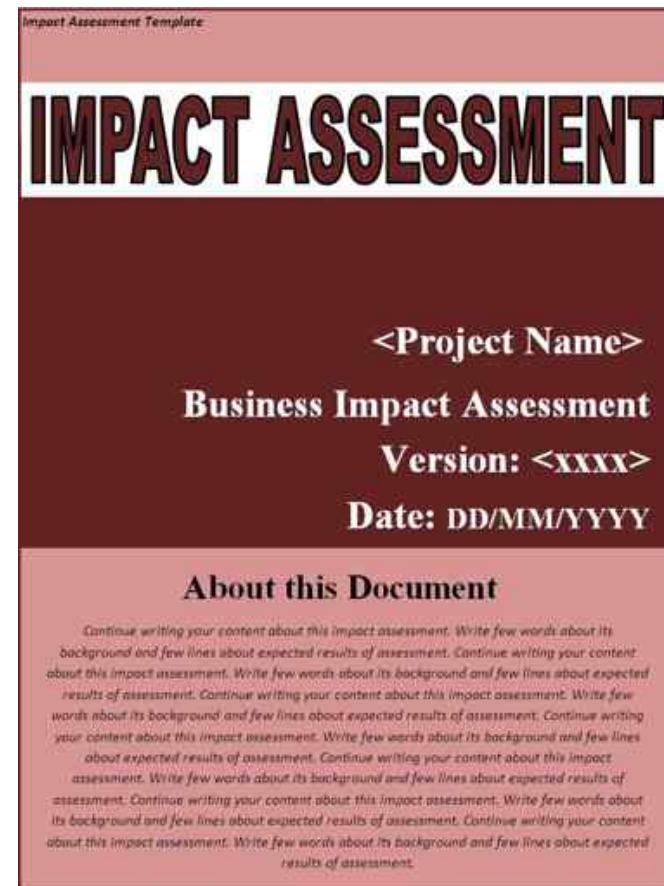
- Risk management
- Ethics review
- Project reflexivity
 - ELSA / ELSI
 - Advisory boards



http://en.wikipedia.org/wiki/Drawing_Hands

Activities of RRI

- Risk management
- Ethics review
- Project reflexivity
 - ELSA / ELSI
 - Advisory boards
- Impact assessment
 - Privacy impact assessment
 - Ethics impact assessment



<http://www.wordstemplates.org/impact-assessment-template/>

Activities of RRI

- Integration of foresight into research



<http://www.arengufond.ee/eng/foresight/presentation>

Activities of RRI

- Integration of foresight into research
- Public engagement (up, mid, downstream)



<http://www.mobilizestrategies.com/blog/2012/5/22/putting-the-engaging-in-public-engagement-better-public-engagement.html>

Activities of RRI

- Integration of foresight into research
- Public engagement (up, mid, downstream)
- Technology assessment (cTA, pTA, ...)



Activities of RRI

- Codes of ethics / conduct / practice



<http://strategic3i.com/Code-Of-Ethics9.php>

Activities of RRI

- Codes of ethics / conduct / practice
- Professional obligations



<http://www.apexslm.com/2011/05/30/so-what-is-a-profession/>

Activities of RRI

- Codes of ethics / conduct / practice
- Professional obligations
- Pledge / oath



<http://freakoutnation.com/2011/12/29/republican-voters-in-virginia-required-to-sign-a-loyalty-oath/pledge/>

Activities of RRI

- Codes of ethics / conduct / practice
- Professional obligations
- Pledge / oath
- Legislation / regulation
 - Explicit regulation (e.g. nanocode)
 - Creation of market accountability (liability)



<http://www.renflo.com/legislation/>

Activities of RRI

- Standardisation, certification, labels



<http://www.organics-recycling.org.uk/page.php?article=1788&name=Packaging+waste+directive+and+standards>

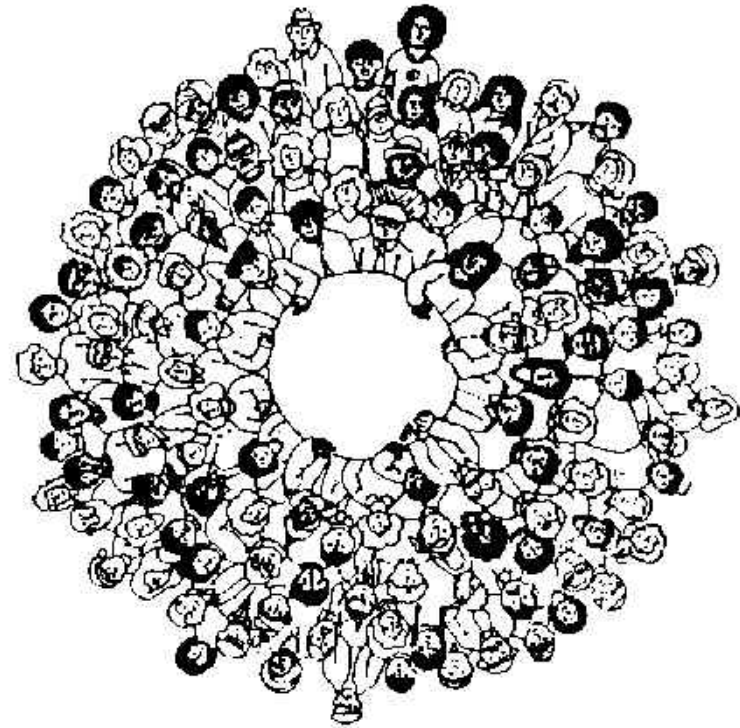
Activities of RRI

- Standardisation, certification, labels
- Training, education



Actors of RRI

- Individual researchers
- Research organisations (both publicly and privately funded)
- Users of research and innovation
- Civil society actors
- Policy makers on different levels
- Professional bodies
- Legislators
- Educational organisations (e.g. schools, universities)
- Public bodies (from local authorities to regional structures)



http://www.hrea.org/erc/Library/First_Steps/index_eng.html

Normative Foundations

- Democratic norms
 - Human rights
 - International principles (e.g. UNESCO)
 - European treaties
- Other relevant norms
 - Philosophical ethics
 - Research ethics
 - Scientific ethical principles
- Principles of governance
 - Democracy
 - Transparency, regulatory parsimony
 - Precautionary principle



<http://webpub.allegheeny.edu/dept/psych/SeniorProject/Comp1.html>

RRI in the EU / Horizon 2020

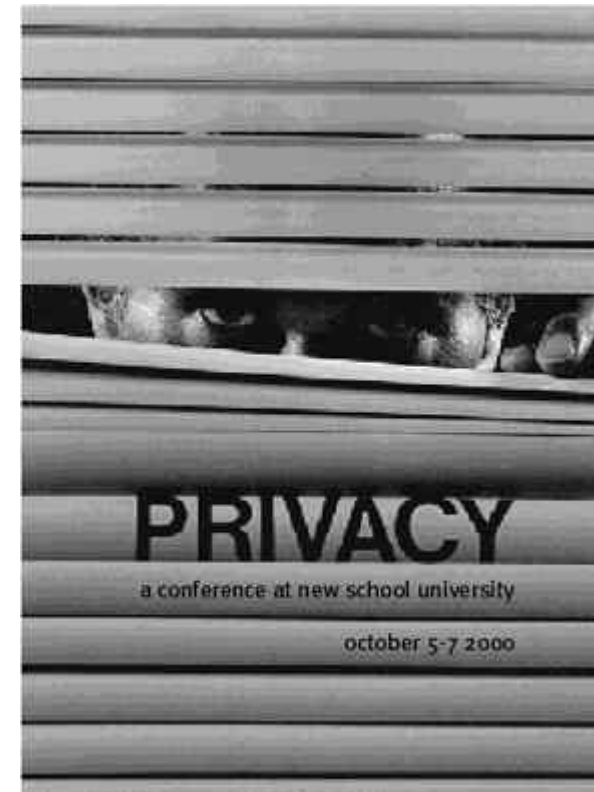
- Builds on Science and Society to Science in Society
- Cross-cutting activity in Horizon 2020; Action lines
 - Inclusiveness
 - Gender equality in research content and in careers
 - Open Access to scientific outcome
 - Science education
 - Ethics
 - Governance
- Four projects starting in Feb 2013 (2 research: GREAT, ResAgora, 2 CSA, Responsibility, Progress)
- Current call: tools (7m), RRI in industry, 5 MMLs



http://ec.europa.eu/research/fp7/index_en.cfm?pg=logos

Privacy as Exemplar of RRI

- Privacy is probably the most studied and best understood issue in R&D
- Privacy as key problem in ICT / NBIC
- Conceptual issues: the problem of the problem
- PIA, EIA, PbD as exemplary methodologies



<http://www.newschool.edu/centers/socres/privacy/>

Problems of RRI

- Epistemic limitations
- Complexity of the concept
- Technocracy / determinism
- Reliance on inappropriate mechanisms
- Intrinsic contradictions
- Conflict with freedom of research
- Resistance
 - Fear of bureaucracy
 - Lack of knowledge
 - Lack of resources
- Cost benefit analysis of RRI, opportunity cost



<http://www.seven-health.com/tag/problems/>

The Practitioners' View

During a workshop in Oxford in October participants were asked: How can RRI be implemented?

- We do not know.
- It depends.
and
- It is hard.



The Way Forward

- Let's not overstate the possibilities of RRI
- Reflect on assumptions and contradictions
- This can allow the development of RRI as a meta-responsibility
- Interpret RRI as a way to become better at making contested decisions
- Provide conceptual and practical guidance

<http://torrii.responsible-innovation.org.uk/>

