RI Prompts and Practice Cards

Anticipate

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In the AREA-TPs framework, the first key activity is to Anticipate the possible outcomes and implications of the work. By considering possible futures, we can direct our efforts more carefully and effectively. It is important to consider possible risks, unintended consequences, and misuses of the work, as well as its intended benefits. All the cards in this deck can be used to support Anticipation, for example, through the prompts or questions on each card. While anticipation and reflection are closely related, in this deck, Anticipate cards are broad and forward-looking.

Intention

Example actions: 2023-05-16

- Map possible impacts.
- Use existing literature reviews and prioritisation.
- Solicit a range of input, expert reports, e.g., UN SDGs, and peer inputs.
- Involve intended beneficiaries.

Should this work be undertaken?

Who will benefit?

On what timescale?

How can we measure its impact?
**Anticipate**

- Increase stakeholder involvement.
- Identify and apply emerging ethical, monitoring, and audit risk assessment.
- Follow local policies and best practice.

**Reflect**

- More reflexive emphasis to the deck the reflect cards bring a question on each card. In this example through the prompts or example questions, it can be used to support reflection for practice. For a practice, e.g., risk assessment, health and safety, research, or engagement.

**RI Prompts and Practice Cards**

**Anticipate**

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**Reflect**

- Solicit a range of Lay, expert, and peer inputs.
- Consider state, military, and criminal applications.
- Identity unanticipated outcomes from related projects.
- Design to minimize risk from expert and peer inputs.
- Approaches.
- Negotiate alternative approaches.
- What might happen if it goes wrong?
- What might happen if it goes miss-used?
- Are there groups of organizations opposed to the work?
- Are there reasons NOT to do it?
- What will happen if the work is unsuccessful?
- How could the work be used or unintended?

**Product**

- Solicit a range of Lay, expert, and peer inputs.
- Approaches.
- Evaluate alternatives.
- Negotiate alternative approaches.
- Design to minimize risk from expert and peer inputs.
- Consider state, military, and criminal applications.
- Identify unanticipated outcomes from related projects.

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**Consequences**

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**Conflicts Potential**

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**Unintended**

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**People**

- Emphasize positive actions.
- Adjudgments are in place.
- Ensure reasonable accommodations are in place.
- Use accessibility guidelines and resources.
- Conduct an Equity Impact Assessment (EIA) and develop an Equity, Diversity and Inclusion (EDI) action plan.

**Process**

- Schedule sessions and agenda items dedicated to RI.
- Convene an advisory board.
- Review periodically.
- Agree on RI action plan and privileges and biases.
- Identify your own priorities.
- Reflect on past projects.

**Equity, Diversity, Inclusion**

Is anyone excluded?

Do the outputs reflect access?

Are the processes and stakeholders representative?

How diverse is the team?

How inclusive are our practices?

**Means of Reflection**

- What assumptions do we bring to the work?
- How do we measure or monitor time to reflect?
- How and when do we make understanding reflection?
- Does everyone in the project understand RI?
Engage

Purpose
- Include Lay members in related work.
- Monitor media coverage of representing relevant groups.
- Involve organizations
- Organise or join public engagement and outreach

Example actions:
- Are diverse voices heard?
- Are the times of the work acceptable (and to whom)?
- Are the aims of the work discussions?
- Is it easy to get involved in groups?
- Is the work known to the general public and other

Public Dialogue

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Engage

Engage

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Engage

Product

Feedback:
- Get early and frequent design feedback.
- Employ human-centered design methods.
- Convene a user/stakeholder panel or advisory group.
- Convene a user/stakeholder expectations for stakeholders and define objectives and

People

- Travel to child support programs.
- Provide material support for leaders.
- Identify possible reasons and data are representative.
- Monitor whether participants

Input

- Relevant lived experience?
- Does this include people with experiences considered?
- Are a wide range of voices included?
- How can stakeholders influence the product or service?

Stakeholder

- Under-represented?
- Can anyone else represent supported?
- How can they be included and not excluded?
- Are any groups of stakeholders over-represented, under-represented?

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Engage

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Engage

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Engage

Involvement:
• Be flexible, e.g., allow online creation methods.
• Employ co-design or co substrate project roles.
• Give stakeholders questions and methods defining aims, research.
• Involve stakeholders when.

Example actions: 2023-06-07

Acknowledged.
Involvement supported and
how is stakeholder involvement in the
work?
Can they shape the goals or
substantial involvement in the
project.

Involvement
Stakeholder

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Act

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Act

2023-06-02

Project cards look beyond the current innovation. In this deck, the act of responsible innovation is to support responsible actions. There are many actions, these lists are not exhaustive and there are many

innovation. Ultimately, this closes the loop of responsible difference in the work being done.

Engagement in order to make a

and articulation, reflection and 

RI to use the insights gained from the fourth key activity is to act, that is

in the APER-4PS framework, the

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Purpose
- Support adoption by others.
- Adopt open licenses.
- Adopt open licenses.
- Publish and publicise the outcomes.

Act
- Participate in professional bodies and standards.
- Campaign.
- Run a publicity or impact regulatory and public bodies.
- Evidence from government.
- Respond to requests for evidence.
- Talk to policy makers.

Future
- Regulation & legislation.
- What can we contribute to regulation?
- What can we contribute to inequality?
- How can we reduce inequality?
- How can we shape a better future for everyone?

Sharing the

Openness
- Is data appropriately archived?
- Is data appropriately archived?
- Is all relevant information disclosed?
- Are publications and reports disclosed?
- Work done?

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Act

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Act

Example actions: 2023-06-02

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Disscuss again later...

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Can you agree?

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we are doing it

Most

Less Relevant

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Can you agree?

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Can you agree?
Quick wins:

Add your own concern.

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Can you agree?

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Blank
What is Responsible Innovation?

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Instructions

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Plan to tackle the challenges identified.
3: Combine your discussions and work.
4: Discuss (or refer to) your understandings of the cards.
5: Discuss (or refer to) the relevance of organizational (coloured) cards.
6: Decide on the cards.
7: Decide on the hands to choose a card from.

Exercise 2: Introducing the cards

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Instructions

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Exercise 3: Can you agree?

Example Stakeholders (2)

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Instructions

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Instructions

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Example Stakeholders (2)

These are just some examples; try to think broadly...

- Bystanders (indirectly or unintentionally affected)
- Someone who has lost their job because of it
- Someone who is alive in 20 years time
- A person living in vulnerable conditions
- The natural environment (including animals and plants)
- Exploiters (affecting others)
- Another researcher or technologist in the near future
- A large company that wants to make money from it
- The police or national security
- A tech-savvy criminal
- An enemy state or terrorist

Other (add your own...)

Credits

The cards have been developed by the Horizon Digital Economy Research Institute at the University of Nottingham in collaboration with the OSSW, supported by UKRI Grants EP/K022549/1 and EP/V00845I. They are based on the AREA-4P Framework for Responsible Research and Innovation in ICT [1, 2]. All rights of the cards and images therein are licensed under a Creative Commons Attribution 4.0 International License.

1. https://doi.org/10.1145/3064940
2. https://doi.org/10.1145/3597512