Developing a topography of 'Responsible Conduct of Research' across disciplines

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Background

Work on 'Responsible Conduct of Research' is siloed. Most is either:

Broad high-level frameworks covering all disciplines



We want to fill the gap: a mapping across many disciplines



Instructions specific to one discipline



The project's goals:

- Map out a cross-disciplinary understanding of RCR.
 - What are the dimensions of RCR?
 - How much do these differ (or not) across disciplines?
- Embed that knowledge in various local contexts in the EU and UK

Project page: <u>osf.io/8ntex</u>



Scoping Review



1 QR code!



Qualitative Analysis

- Atlas.ti used for coding each text
- Hybrid coding strategy (inductive + sensitizing concepts)
- 'Picking out' elements of text that described predefined RCR concepts
 - Largely semantic
- Codes
 - \odot 202 loose codes
 - \circ 20 groups
 - \circ 6 most salient groups themes

Themes

Integrity

- o'Umbrella' term
- Central to fundamental RCR
- Some texts used it almost synonymously
- Others consider it a core 'goal'
- Too nebulous to be meaningful?

Reflexivity

- o Continually reflecting on one's position in the research process
- Only recently considered outside just qual
- Aligning research aims to whole society
- Feeds into and from other RCR elements (like anticipation)

Accountability

- o Accepting responsibility for one's actions
- Definition concrete, but what about practice?
- Relational and context-dependent

Transparency

- Another foundational element of RCR
- Overlays other dimensions
- Varied definitions
- Relating to other researchers as well as society



Anticipation/harm minimization

- o What are the consequences of an action?
- Relevant to newer advancements (e.g., in tech)
- As tech advancements scale up so do ethical concerns
- Harm minimization related to anticipation



Capacity-building

- Developing skills or resources
- Emerging property of RCR
- Whose responsibility?
- Relevant for action research and institutes

Interviews and focus groups

"What constitutes responsible conduct of research?" etc.

- 18 participants
- Range of career stages and roles
 - Academic
 - Professional services / support
 - Research institutes / policy
- Range of disciplines
 - Social sciences
 - Medical sciences
 - Arts/humanities
 - STEM



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Thematic analysis to extract a list of dimensions of RCR

integrity	conflicts of interest	peer review	reproducibility	rigour	honest reporting
sharing all results	accurate representation of source material	exploration/creativity	objectivity	interdisciplinarity	reflexivity
accountability	admitting errors	promotion of RCR	capacity building	supervision	crediting contributions
fairness/equality to colleagues	diversity/inclusion	care for participants	acknowledging sources	preservation	data sharing
open dissemination	abidance by regulations	adherence to funder requirements	sustainability	efficiency	considering society's needs
		anticipation/harm minimization	public involvement		

Delphi process

- Developed in 1950s to forecast the future
- A structured form of communication
 - Iterative: participants can change views based on feedback from previous rounds
 - $\,\circ\,$ Relative anonymity
- Often used for policy panel consensus
- However, we are trying to map and refine existing opinions, rather than reach consensus
- Protocol accepted as a Registered Report (by PCI-RR)



Delphi process

Take part! Email us: rcr-delphi@bristol.ac.uk

Panel of experts (~30-100):

- Inclusion criteria: involved in RCR
 - \circ Scholarship
 - \circ Training
 - Project involvement
 - \circ Keywords
- Representation across disciplines • 34 UK REF units of assessment

Panel	Unit of Assessment			
А	1 Clinical Medicine			
	2 Public Health, Health Services and Primary Care			
	3 Allied Health Professions, Dentistry, Nursing and Pharmacy			
	4 Psychology, Psychiatry and Neuroscience			
	5 Biological Sciences			
	6 Agriculture, Food and Veterinary Sciences			
В	7 Earth / Environmental Sciences			
	8 Chemistry			
	9 Physics			
	10 Mathematical Sciences			
	11 Computer Science and Informatics			
	12 Engineering			
C	13 Architecture, Built Environment and Planning			
	14 Geography and Environmental Studies			
	15 Archaeology			
	16 Economics and Econometrics			
	17 Business and Management Studies			
	18 Law			
	19 Politics and International Studies			
	20 Social Work and Social Policy			
	21 Sociology			
	22 Anthropology and Development Studies			
	23 Education			
	24 Sport and Exercise Sciences, Leisure and Tourism			
D	25 Area Studies			
	26 Modern Languages and Linguistics			
	27 English Language and Literature			
	28 History			
	29 Classics			
	30 Philosophy			
	31 Theology and Religious Studies			
	32 Art and Design: History, Practice and Theory			
	33 Music, Drama, Dance, Performing Arts, Film and Screen Studies			
	34 Communication, Cultural and Media Studies, Library, and Information Management			

Delphi process

Developing the Initial List of Dimensions

Goal: Develop an initial reference document, listing proposed dimensions of RCR, to be presented to participants in phase 1

- Based on interviews, scoping review and focus group.
- Content determined by authors only (i.e., no participant input).

Phase 1. Initial Modifications

Goal: To refine the proposed list of RCR dimensions with additions from participants, reflecting the wide range of disciplines in which they have RCR expertise.

- Focus is on participant input, broadening the scope of the initial list to accommodate many disciplines' perspectives.
- No ratings or comments on items will be accepted in this phase.

Phase 2. Weighting items by importance

Goal: Rate the dimensions on their importance to RCR in various disciplines, refining across several rounds

- Maximum of 4 rounds. After each round of ratings, the authors prepare a feedback report with numerical data and qualitative comments from that round. This is shown to participants in the next round, so they can consider it before they give ratings again.
- Participants may still suggest additions to the list of dimensions, but their inclusion will be at the authors' discretion.
- Contrary to a consensus Delphi process, we are not aiming for 'ratings to converge. Rather, the goal is stability, i.e., ratings not changing in between rounds. Once stability is reached on an item, it will be 'set' and will not appear in subsequent rounds.
- Approximately two weeks between each round; one for participants' feedback and one for author feedback reports.



Developing a toolkit

- Develop an openly available toolkit with 2 elements:

 Framework (including visuals) of Delphi findings
 Exercises for users to engage with material
- Disseminate to existing Communities of Practice
 o Focus groups to improve
- Sustainability: encourage others to use and take this forward



Take part! Email us: rcr-delphi@bristol.ac.uk



Thank you











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