

DCitizens Fostering Digital Civics Research and Innovation in Lisbon

DELIVERABLE 4.1: DCitizens Ethics Framework

DCitizens has received funding from the European Union's Horizon Europe Framework Programme, project call HORIZON-WIDERA-2021-ACCESS-03, grant agreement 101079116



Co-funded by
the European Union

DCitizens GA 101079116

D4.1: Ethics Framework

Project Information

Grant Agreement	101079116
Title	Fostering Digital Civics Research and Innovation in Lisbon
Acronym	DCitizens
Funding Scheme	Twinning
Start date	01/12/2022
Duration	36 months
Call	HORIZON-WIDERA-2021-ACCESS-03
Website	https://dcitizens.eu/

Deliverable Information

ID	D4.1
Title	DCitizens Ethics Framework
WP	WP4
WP Leader	IST-ID
Contributing Partners	-
Nature	Report
Authors	Ana Henriques
Contributors	Hugo Nicolau
Reviewers	Hugo Nicolau, Ana Henriques
Deadline	30/11/2023

Dissemination Level

PU	Public	<input checked="" type="checkbox"/>
PP	Restricted to other programme participants	<input type="checkbox"/>
RE	Restricted to a group specified by the consortium	<input type="checkbox"/>
CO	Confidential, only for members of the consortium	<input type="checkbox"/>

Document Log

Version	Date	Author	Description of Change
1	20/11/2023	Ana Henriques	First release
2	28/11/2023	Hugo Nicolau	Proofreading
3	26/06/2024	Hugo Nicolau	Changes requested in mid-term review:

			<p>Re-written Section 2 to improve the methodological description by explicitly relating the DCitizens commissioning model, ethics framework, and toolkit.</p> <p>Fixed the broken link to the downloadable toolkit (Section 1)</p> <p>Re-written Section 4 to relate the toolkit with the project's goals (Section 4.1); made explicit the design choice of using a card-based toolkit; improved description of how to use the toolkit (Section 4.5)</p>
3.1	27/06/2024	Ana Henriques	Review
3.2	02/07/2024	Hugo Nicolau	Integrated changes
3.3	08/07/2024	Hugo Nicolau	Quality control

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Executive Summary

Anchored in principles of feminist ethics and intersectionality, the deliverable describes the first version of the Ethical Framework (D4.1) developed by DCitizens for employment in the commissioned projects by community-based organizations. The framework introduces a relational perspective on ethics within the context of Digital Civics, advocating for a community-led, processual approach that considers power dynamics and local contexts. The framework embraces feminist epistemologies, methods, and methodologies, fostering a reflexive practice.

The document outlines the conceptual underpinning of the ethical framework and its theoretical grounding, showcasing its instantiation in the form of an Ethics Toolkit. The toolkit is intended to support DCitizens' commissioned Case Studies and ESR training activities, promoting ethical discussions among researchers, NGOs, government entities, and other stakeholders involved in civic technology development.

The toolkit is freely available for download at: <https://dcitizens.eu/project-deliverables/>.

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1 Introduction

In the pursuit of advancing the design of civic technologies within the DCitizens project, we introduce a comprehensive ethical framework underpinned by an ethical deliberation process. The central objective is to develop and test a robust model that not only informs a community-led approach to the design of civic technologies but does so through an ethical lens, keeping in line with the DCitizens ethos.

The imperative for such a framework is rooted in the growing recognition of the need for a community-led, feminist approach to ethics in the realm of Human-Computer Interaction (HCI). Theoretical groundwork, as detailed in Section 3, underscores the limitations of the prevailing prescriptive nature of machine ethics and bioethics principles. It provides a theoretical foundation, advocating for a paradigm shift that embraces power dynamics, local contexts, and a pluralism of perspectives. Theoretical elements such as situated knowledges, standpoint theory, intersectionality, participatory methods, and care ethics converge to shape our approach, emphasizing the importance of weaving these considerations into the fabric of ethical practices in HCI.

In response to this theoretical backdrop, our approach to the toolkit's design, detailed in Section 4, is outlined. The toolkit is conceived as a tangible manifestation of our multidimensional adaptive model for ethics in HCI design. Reflecting the commitment to a community-led, processual approach, the toolkit becomes a practical instrument that operationalizes its theoretical underpinnings. It moves beyond mere theoretical propositions, offering a dynamic and adaptable set of tools for ethical deliberation, with a particular focus on intersectionality, participatory engagement, and an ethics of care.

2 The Need for an Ethical Framework in Digital Civics

Digital Civics posits the use of technology in the provision of relational models of public services; that is, the development of services that take as a starting point the potential of technology to support citizen-focused sharing of knowledge, experience, and resources. It empowers citizens and community-based organisations to co-create and take a more active role in shaping agendas, making decisions about service provision, and playing a more central role in making such provisions sustainable and resilient. Such an approach has the potential to reconfigure power relations between citizens, communities, and institutions.

2.1 DCitizens Commissioning Model and its Case Studies

DCitizens builds on relational models of research by deploying a **Case Study Commissioning Model** informed by community needs and assets. The model is grounded on two components: First, a yearly call for project proposals from community-based organisations or citizens in Lisbon (e.g., [2023 call](#) and [2024 call](#)). Second, the organisation of civic events. In these events, we invite participants from academia, industry, local government, NGOs, and self-advocacy groups. We conducted round-table discussions around citizen-driven needs and goals, which serve as the basis for the project proposals in the yearly commissioning call of DCitizens. This is also an opportunity to build rapport, work, and disseminate the commissioning model in the local communities.

Following the civic events, DCitizens opened the call for community-led projects. After submission, applications go through two rounds of shortlisting. First, applications are reviewed by the DCitizens consortium to assess their fit to the call (i.e., aiming to make a positive social change with and through digital technologies). So far, no applications have been rejected at this stage. In the second stage, applications go through a peer-review process where all applicants are asked to rank all project proposals. In practice, applicants form a community reviewing panel tasked with ranking and reviewing proposals, thus contributing to the commissioning decision-making process of resource allocation. We build on research traditions of Participatory Design,

Feminist HCI, and Social Justice-oriented design that stress the importance of working with citizens at every stage of the technology design process while addressing structural power imbalances.

Following the review process, the DCitizens team publishes the results of the commissioning call and engages in a community-led project with the winning proposal.

All commissioned projects and proposals are treated as case-studies. These will inform a Research & Innovation agenda for the city of Lisbon (D4.3) grounded on a relational (rather than transactional) innovation paradigm. The case-studies illustrate real-world examples of community-led projects emerging from opening the research process to civic participation. They aim to understand the complexities and gain insights on how to design, deliver, maintain, and govern digital technologies with local communities.

2.2 From User-Centred to Community-led Projects

User-centred Design (UCD) is held as the standard of successful design, including the design of digital technologies, services, and products. It posits that users' needs should be central to the design process. One should **design for** the user, from the initial stages of understanding needs to the iterative evaluation/refinement of prototypes based on users' feedback.

However, recent critiques of UCD have highlighted the need for a shift to **designing with** or **designing by**, rather than designing for. Key to this design movement is the idea of co-creation: the concept of empowering individuals and communities with the skills necessary to innovate and create solutions for themselves. Participants are not involved as research subjects or consultants but rather as designers engaged in **active and sustained collaboration**. Community-led design is an approach in which the co-design process, not just the outcomes, is developed through collaboration with community members who will be directly impacted by the design.

Again, DCitizens draws from Feminist and Social Justice principles by applying a community-led approach within the design process of each commissioned project.

2.3 Ethics as a Pillar within Community-led Design Projects

Engaging in a community-led project begs considerations on power and justice within **(ethical) deliberations throughout the co-creation process**. As researchers, designers, and technology experts, we acknowledge the power imbalances when working with communities and citizens in the development of novel technologies.

Technology design and its underpinned deliberation processes are inherently shaped by underlying goals, values, and moral agendas, which, if left unexamined, can produce harmful outcomes that further oppressive value systems.

Within Digital Civics, the discussion surrounding ethics typically focuses on machine ethics and bioethics principles rather than considerations about and between people. Additionally, most ethics work is addressed to other researchers, even that which draws from a community-led approach to design and research.

We propose a more relational and reflexive approach to ethics. We do so by proposing a **process of frameworking** – rather than a fixed framework – by linking the feminist ethos with community-led design. This, we argue, results in a more dynamic form of ethics, community-led and continuous, which accounts for local contexts and is inherently cognizant of how power dynamics can influence decisions. Moreover, we contribute with a **processual ethics Toolkit** that operationalises the concept of *frameworking* for a community-led feminist ethics that communities can use independently.

Such a toolkit is especially valuable to DCitizens due to its commitment to supporting yearly community-led projects. The toolkit will aid in building relationships and common understanding when engaging with new communities and throughout the design process, as well as when discussing the sustainability and ethically minded exit strategies for each commissioned project.

In the remainder of this document, we describe the conceptual background for our Ethics Framework and the resulting Toolkit. The Toolkit will be used and refined throughout DCitizens in all its commissioned projects.

3 *Frameworking for a Community-led Feminist Ethics*

In this section, we describe fundamental concepts and background to understand the proposed ethics framework, its aims, epistemologies, and used methods and methodologies to continue refining the Ethics Framework.

3.1 Context

Feminism, especially within academia, is typically held as a domain of critical theory aimed at analysing the systemic and manifold ways gendered oppression manifests. It is plural in both construction and presentation but has as its key concerns "issues such as agency, fulfilment, identity, equity, empowerment, and social justice" (Bardzell, 2010) (p. 1302). On the other hand, the field of digital civics aims to empower citizens and non-state actors to co-create, take an active role in shaping agendas, and move from transactional to relational service models due to the potential of such models to reconfigure power relations between citizens, communities, and institutions (Vlachokyriakos et al., 2016). Further, within the purview of digital civics, community-led design is a movement focused on reframing the approach to co-design with a specific focus on empowering communities to catalyse their own needs/context-based solutions (Sanders & Stappers, 2008). Given the overlap in intention, we believe these missions to be intimately entwined with those of feminism. Indeed, this deliverable outlines our work on developing an ethics for digital civics that explicitly and purposely draws from feminist theory and praxis.

Within HCI, the discussion surrounding ethics typically focuses on machine ethics and bioethics principles rather than considerations about and between people. Additionally, all ethics work in HCI is addressed to other researchers, even that which draws from a community-led approach to design and research. Such work also implies by omission that the default expectation is that researchers do not already belong to these communities, which begs considerations on power and justice within the academic space.

We thus propose a more relational and reflexive approach to ethics. We do so by proposing a process of *frameworking* — rather than a fixed framework — for feminist ethics with the primary goal of developing a processual ethics toolkit that communities can use independently.

In so doing, we see an inextricable link between the feminist ethos and that of our work, which will be described below, along with the most relevant feminist epistemologies, methods, and methodologies from which we draw. This structure was modelled after Bardzell and Bardzell's paper (Bardzell & Bardzell, 2011) outlining a feminist methodology for HCI — symbolizing both that we hope to add our voices to that call and that we recognize the importance of the seminal work done already.

Ethics, especially within the context of HCI tends to be prescriptive, typically following the form of set guidelines or codes of conduct, rather than processual, where it might take on forms more akin to Komesaroff's micro-ethics approach (Komesaroff, 1995) but without its strict reliance on static codes (Bittner & Hornecker, 2005). This static nature of hitherto ethics applications leaves little room for contingency, variation, and social dynamics — indeed, for life. This is where we would like to intervene. We propose a more dynamic form of ethics, community-led and continuous, which accounts for local contexts and is inherently cognizant of how power dynamics can influence decisions; and, in turn, society (Lynch, 2016).

3.2 Aim

Ethical deliberations are concerned with everything from the individual to the collective. They are inherently shaped by moral agendas, which are necessarily contingent. This is important to

note because if left unexamined, these agendas can produce harmful outcomes that further oppressive value systems (Henriques et al., 2023). This is especially true when considering unbalanced power/knowledge dynamics (Foucault, 1980) regarding marginalized epistemologies. Ethical processes of deliberation must take into consideration the complexities surrounding exercises of power. This is precisely why an intersectional feminist framework is particularly apt, given its inherent concern for power differentials, which "helps in contextualizing the pervasive silencing, absence, difference, and gendered oppression in all its intersecting forms while remaining conscious of the relationality inherent to any deliberation process" (Henriques et al., 2023) (p. 2).

Ruth Levitas presents a framework for societal reconstitution through three distinct yet interrelated modes. The first, archaeological, involves linking concepts and images within political agendas and policies. The second, ontological, examines and questions the prevailing values and knowledge systems that shape a given society. The last, architectural, focuses on empowering individuals to envision and conceptualize alternative possibilities for the future (Levitas, 2013). Though Levitas's work was on utopianism, we find within it many parallels to the aims of this work. The utopian tradition is predicated on the concept of hope for the essential ideation of betterment, which constitutes the basis of any utopian project (Anderson, 2006). And hope, argues José Muñoz, is also praxis - a critical methodology which informs "a backward glance that enacts a future vision" (Muñoz, 2009) (p. 16) even when it is difficult. Indeed, especially when it is.

Drawing from these foundations, we build on our prior work (Henriques et al., 2023) to develop a robust and multidimensional adaptive model for community-led ethics in HCI design that acknowledges the necessity of a layered analysis and incorporates an intersectional feminist ethical framework as an integral component thereof. To do so, we are working on developing a framework primarily focused on independent use by communities in addition to a flexible toolkit for the explicit incorporation of ethical considerations in community-led design projects (Costanza-Chock, 2020) on a case-by-case basis. We purposely focus on community-led design as a movement that intends to shift from designing for/with to a designing-by approach. Key to this design idea is the concept of empowering communities with the skills necessary to innovate and create solutions for themselves. Community-led design is an approach in which the co-design process (Sanders & Stappers, 2008), not just the outcome, is developed through collaborations with community members who will be directly impacted by the design.

3.3 Epistemologies

An epistemology is a theory of knowledge. It is, in essence, how we know, and for whom as well as how we produce knowledge (Bardzell & Bardzell, 2011). Standpoint theory, along with Donna Haraway's concept of situated knowledges, is a central element of feminist epistemology. Situated knowledges emphasize the idea that knowledge is partial and contextually situated rather than universal and transcendent (Haraway, 1988). Historically, assumed objectivity has been portrayed as an impartial standpoint, seemingly neutral, but it often perpetuates power dynamics rooted in the dominance of masculinity, whiteness, and normative gender norms, among other axes in the Matrix of Domination (Costanza-Chock, 2020; Hill Collins, 1990). In contrast to the dominant epistemological tradition, feminist epistemologies focus on the influence of social positioning. Standpoint theory addresses this by emphasizing that a standpoint is not inherited but rather achieved through active political engagement with feminist agendas (Harding, 2004). Feminist standpoints thus allow us to step outside the boundaries of conventional approaches and encourage us to seek alternatives. By embracing a solid feminist research ethic, we can also develop greater confidence in the tools we employ in our projects, which ultimately elevates the quality of our research (Henriques et al., 2023).

Though distinct from epistemologies per se, we feel that including some theoretical frameworks is still appropriate within this section. Drawing on a framework of intersectionality (Crenshaw, 1989; Hill Collins, 1990), which includes disability justice, and queer and post-colonial analyses

of power, we are also including principles of justice within our work on ethics. We are particularly interested in those of Nancy Fraser (N. Fraser, 2009) and Amartya Sen (Sen, 2012), whose work on justice requirements and inclusion is invaluable in shaping our ethics toward equity in HCI design — which can be defined as "the acknowledgement of oppression stemming from social systems" and "involves designing with the intent to address such oppression by valuing community perspectives and redistributing design power to marginalized communities" (Pettersen et al., 2023) (p. 1).

3.4 Methods

Methods are techniques for data collection and analysis (Bardzell & Bardzell, 2011). Methods often employed by feminist scholars and practitioners are largely qualitative and include in-depth interviews, discourse analysis, observation, reflection workshops, focus groups (Wilkinson, 1998), or group-level assessments (Vaughn & Lohmueller, 2014), all of which we are utilising to inform the design of the ethical framework. This emphasis on gathering information on quotidian experiences is a hallmark of the feminist ethos, and crucial to our work (e.g., (Neto et al., 2021)). Perhaps for that reason, feminist researchers frequently draw from participatory methods to empower people to mould the research (Cook & Fonow, 1986) cited in (Bardzell & Bardzell, 2011). Specifically, **we intend to iterate on the framework itself through participatory methods to develop a toolkit for later community-led use.**

We are co-designing the toolkit through methods rooted in a value-sensitive design approach that draws from the previously developed framework and is informed by Pettersen et al.'s review of toolkits geared at promoting equity (Pettersen et al., 2023). However, we intend to leave space for communities to determine and prioritise their own needs and values. As such, we plan on iterating on the schnittmuster method for designing adaptable toolkits as an approach specifically developed to account for contextual variation (Meissner et al., 2018). To do so, we believe a method such as (Counter)storytelling to be a constructive glue to hold our schnittmuster together. Indeed, (re)telling stories has been a crucial element in feminist work (de Lauretis, 1986), and it has even been shown to promote increased involvement and interest in the research process (Lennie, 1999). Counter storytelling, which finds its roots in Critical Race Theory, aims to foster personal growth and challenge dominant paradigms, and has been found to foster a greater understanding of intersectional marginalized identities (Wagaman et al., 2018).

3.5 Methodologies

Methodology is the link between epistemology and method. It is the practical implementation of epistemology through the curation of appropriate methods, which should adequately and explicitly reflect the theoretical considerations informing any given research context (Bardzell & Bardzell, 2011). Specifically, feminist methodologies strive to represent the diversity of human experiences and redirect knowledge production away from control and toward nurturing (Sprague, 2005). This, as argued in (Bardzell & Bardzell, 2011), "is especially urgent" (p. 681).

Indeed, we consider an approach rooted in care ethics as the basis of our ethics framework. Largely modelled after Joan Tronto's work exploring the intersections between care ethics, feminist theory and politics, we too understand ethics as an exercise in care, defined broadly as "a species of activity that includes everything we do to maintain, contain, and repair our 'world' so that we can live in it as well as possible. That world includes our bodies, ourselves, and our environment" (Tronto & Fisher, 1990). Affect, as Brian Massumi argues, holds the potential to disrupt and challenge conventional power/knowledge structures, making it a powerful force for political mobilization and resistance against oppressive systems (Massumi, 2015). As such, we contend that a reframing of ethics as that which occurs between people could facilitate a more reflexive practice - situational and hence political.

Moreover, we look upon Bardzell's description of a generative approach to the integration of feminism into HCI, in which she describes six potential qualities which ought to underpin that process - pluralism, participation, advocacy, ecology, embodiment, and self-disclosure (Bardzell,

2010). Beyond our attempts to integrate them into our work, we see these also as a self-assessment methodology. This is how we understand Costanza-Chock's work on Design Justice. More than a theoretical exploration of how design can help empower marginalized communities, dismantle structural inequality, and foster collective liberation (Costanza-Chock, 2020), we see it also as a set of evaluative case studies for how community-led design practices can elevate political agendas of social reform - something which we perceive to be inextricable from feminist ethics.

4 DCitizens Ethics Toolkit

In this section, we describe the main goals of the toolkit, relevant literature that informed its design, the design process of the toolkit, the resulting version, and how to use it.

4.1 What does the toolkit do?

The DCitizens Ethics Toolkit addresses the gaps and shortcomings of the prescriptive nature of most ethics' frameworks. They rely on static a priori approvals and set priorities, and thus fail to adapt to the changing social contexts or interpersonal power dynamics that occur in the interactions between people and community-led design processes. **We operationalise a feminist care ethics conceptual approach in a usable toolkit for community-led research.**

The toolkit aims to foster the exploration of **ethics in community-led projects** by creating a space for thoughtful **dialogue**, personal **reflection**, and collective **action**. Key activities include (but are not restricted to) goal setting, project planning, defining roles and responsibilities, reflecting on prior actions and processes, and provoking individual and collective change.

Informed by prior work within the DCitizens consortium (Craig et al., 2021), we used a card-based toolkit. Card-based toolkits are powerful tools in participatory design processes, leveraging a structured yet flexible approach to foster collaboration, creativity, and engagement among participants. They have been shown to enhance engagement, facilitate structured ideation, promote creative thinking, and foster collaboration while being highly adaptable to different contexts and stages of the design process. Additionally, cards can be easily printed with minimal resources and serve as a record of the design process, providing a tangible artifact of the collaborative journey, and supporting reflective practices – which is uncumbersome, disposable (if needed), and easily archivable.

In the following section, we provide a short literature review of card-based toolkits in human-computer interaction design processes.

4.2 Card-based Toolkits: A Short Literature Review

With the increasing popularity and diverse applications of card-based toolkits (Smith et al., 2023), notably within the sphere of Human-Computer Interaction, tools of this nature have been increasing in prominence as a way of facilitating collaborative design sessions (Roy & Warren, 2019), allowing more freedom for card grouping, simultaneous card viewing, and annotations (Wölfel & Merritt, 2013).

The trajectory of card-based toolkits within HCI has evolved from general collaborative tools to increasingly specialized, domain-specific resources (à Campo et al., 2019; Elsayed-Ali et al., 2023; Friedman & Hendry, 2012; Lucero et al., 2016; Portillo et al., 2023; Rattay et al., 2023). Initially focused on enhancing collaborative creativity, these toolkits have transitioned to becoming integral components of reflexive practices (Aarts et al., 2020; Lucero et al., 2016; Petterson et al., 2023). This shift is particularly evident in their applications for intersectional feminist theory (B. Fraser, 2010; Pernecky, 2016; Vacca, 2022), helping to address issues of identity, power, and elevate the value of lived experiences. This development proves especially relevant to intersectional feminist frameworks (Coleman et al., 2023; Costanza-Chock, 2020; Logler et al., 2018; Talhouk et al., 2016; Vacca, 2022; Yoo et al., 2022), making similar toolkits

an important tool in addressing issues of equity - inherently related to ethics - within design processes (Mattern, 2021; Petterson et al., 2023; Vacca, 2022).

Transitioning from viewing toolkits as prescriptive sets of guidelines with static approaches to a highly specialized topic (Mattern, 2021), we begin to see a veer toward more dynamic ones. Of note is (Elcessor, 2016)'s work on toolkits as flexible and modular methods that intrinsically account for adaptability, which is crucial if one hopes to address the intricacies of diverse knowledges and contexts within a social locus. Moreover, toolkits which offer singular solutions have been found to be limiting (Gray & Chivukula, 2019), leading us to the conclusion that one ought to avoid being prescriptive about offering standard solutions and instead design a more reflexive experience that supports evolving dynamics and allows for community-building (Bossen et al., 2016; Dindler & Iversen, 2014). This shift is further highlighted by the recognition that toolkits must provide users with the tools to transcend conventional practices and embrace the inherent complexity of ethics (Hamraie & Fritsch, 2019; Light, 2011; Petterson et al., 2023).

4.3 The Design Process

Drawing from the insights gathered in the literature review, it becomes clear that artifact cards have the capacity to transform abstract notions into actionable tools, thus playing a distinctive role in collaborative design and reflexive practices. The purpose of our toolkit's cards, likewise, extends beyond static instruments; rather, they are conceived as dynamic extensions of a design process that is inherently reflexive upon ethical deliberation. As such, we anchored the design process for our toolkit in collaborative and iterative processes that will be built upon further still as future work.

4.3.1 Designer Roundtable

Following the theoretical reflection, we began by conducting a designer roundtable to help materially structure the toolkit. This session consisted of three designers and a moderator, and it marked a collaborative effort to shape a thoughtful and inclusive approach that could effectively draw a bridge between theory and praxis, as well as aesthetics.

The process involved reflecting on and posing key questions for discussion, such as how to integrate the design process itself into the design, embody feminist principles, ensure flexibility, and incorporate care ethics into the toolkit — all things that had been established as key elements from the theoretical background. The requirements distilled from these discussions highlighted the adoption of Tronto's four-phase model of an ethics of care (Tronto & Fisher, 1990) as the organizational structure, a modular design to facilitate easy additions and modifications, a print-friendly black-and-white colour scheme to enhance accessibility, and a clear, simple layout for comprehensibility, in line with (Aarts et al., 2020)'s work. The key insights gleaned from this roundtable underscored the intention to create a toolkit that not only reflects feminist values but also prioritizes user adaptability, inclusivity, and a commitment to care ethics, forming the foundational principles for the toolkit's design. Some preliminary sketches also came out of this roundtable (see Figure 1).

A NOTE TAKING FROM DESIGNER
ROUNDTABLE FOR TOOLKIT DESIGN

- ?
- How to include the design process itself into the design?
 - How can the design embody feminist principles and help bolster the message?
 - How can we make the toolkit flexible and customizable?
 - How can we incorporate care ethics as the ethical basis for the toolkit?

-
- 4 card categories for the 4 phases of Tronto's ethics of care
 - modular design that makes it easy to add and modify
 - black + white with no black background to be print-friendly
 - simple and clear layout for easy comprehension

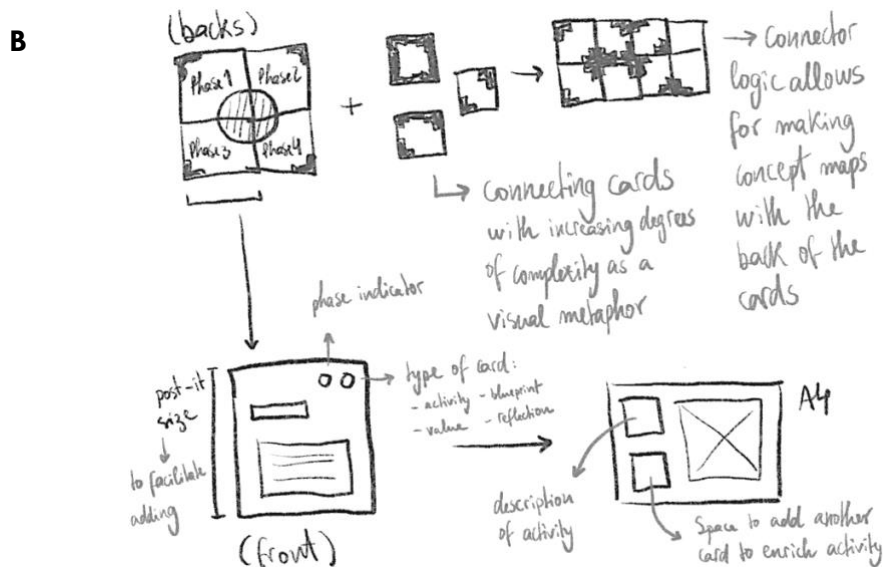


Figure 1: **A)** Note-taking during the designer roundtable. **B)** Sketches done in the aftermath of the designer roundtable.

4.3.2 Deconstructing the Ethical Roadmap

After we had developed an organizational structure for the toolkit, we turned to our DCitizens partners' established work. Indeed, the development of the toolkit was informed by the University of Northumbria, Newcastle's foundational work on the Ethical Roadmap (Craig et al., 2021). This work provides a set of discursive resources aimed at supporting discussions on ethical processes within interdisciplinary research contexts and served as a foundational resource for us. As part of our toolkit's design process, we engaged in a comprehensive analysis of the Ethical Roadmap, which involved meticulous annotation of its content and structure.

Critiques stemming from this analysis identified several areas for improvement. The Ethical Roadmap exhibited very unclear information hierarchies in its layout design, contributing to an ambiguous direction on how to use the toolkit effectively. The prompts within the resource were, at times, overly extensive, potentially making users hesitant to engage with or parse them. Moreover, the Ethical Roadmap lacked considerations for shifting power dynamics within

research teams and participants, a crucial element in ethical decision-making. While it acknowledged feminist ethics as an important contribution, the roadmap itself did not explicitly incorporate this perspective.

In response to these critiques, we then conducted a card sorting process, organizing the Ethical Roadmap's prompts into the four phases of Tronto's ethics of care (see Figure 2). This approach aimed to create a more structured and user-friendly layout, aligning the toolkit with Tronto's ethical framework. Throughout this process, we carefully examined each prompt, deciding what to include, modify, leave out, or add, ensuring a comprehensive and nuanced toolkit. Interestingly, the card sorting process revealed an additional significant gap in the Ethical Roadmap: the absence of a section for feedback and follow-up, and no intentional mechanism for users to repeat the ethical deliberation process. This identification prompted the integration of provisions for feedback and follow-up in the toolkit, enhancing its adaptability and promoting ongoing ethical considerations within groups engaging with it.

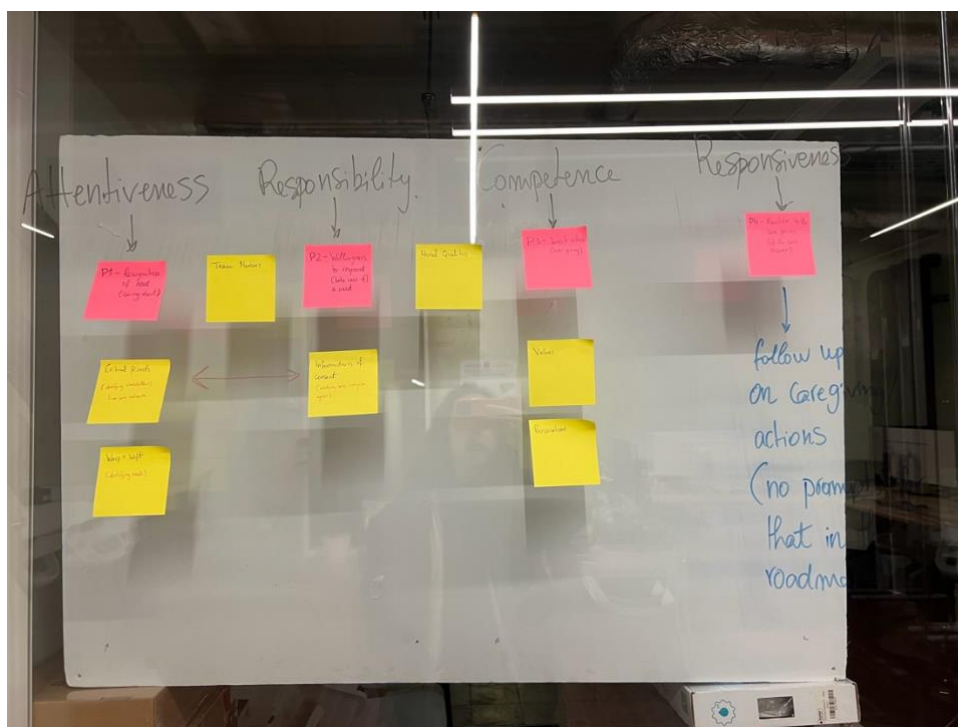


Figure 2: Results from card sorting of the Ethical Roadmap.

4.4 The Toolkit Design

The toolkit is designed to foster a deep exploration of feminist ethics in any community project. It is designed as a modular system based on Joan Tronto's ethics of care model (see Table 1). The goal is to create a space for thoughtful dialogue, personal reflection, and collective action as a vehicle for accessible ethical deliberation. We are committed to continuous improvement and our focus on community contributions reflects our vision of ethics as an exercise in community-led collective empowerment. Based on this model and the previous analyses, we structured the toolkit into four categories corresponding to each phase of care. However, we opted for utilising the ethical dimensions rather than the phases themselves. This was to avoid being prescriptive about both imposing a “correct” order and a “correct” definition.

Phase of care	Ethical dimension
Recognition of need (caring about)	Attentiveness

Willingness to respond to (take care of) a need	Responsibility
Direct action (caregiving)	Competence
Reaction to the care process (of the care receiver)	Responsiveness

Table 1: Tronto's four-phase model for an ethics of care with the corresponding ethical dimensions associated with each phase (Tronto & Fisher, 1990).

4.4.1 Cards

Card Categories (Figure 3):

- **Attentiveness:** Cards in this category emphasize paying attention to the needs and concerns of others. Activities and discussions under this category revolve around recognizing needs and developing a heightened awareness of ethical considerations within your team and throughout the larger network of people your project impacts.
- **Responsibility:** Cards in this category involve exploring the ethical responsibilities we have towards others and the broader community. Activities and discussions under this category revolve around fostering a sense of duty and accountability toward developing our willingness to respond to an identified need.
- **Competence:** Cards in this category focus on developing the necessary competencies, knowledge, and skills to provide effective and thoughtful care. Activities and discussions under this category revolve around putting intent into informed direct action.
- **Responsiveness:** Cards in this category emphasise the importance of being responsive to the needs of others. Activities and discussions within this category centre on active listening and developing an iterative approach to the development of your project based on feedback and follow-up.

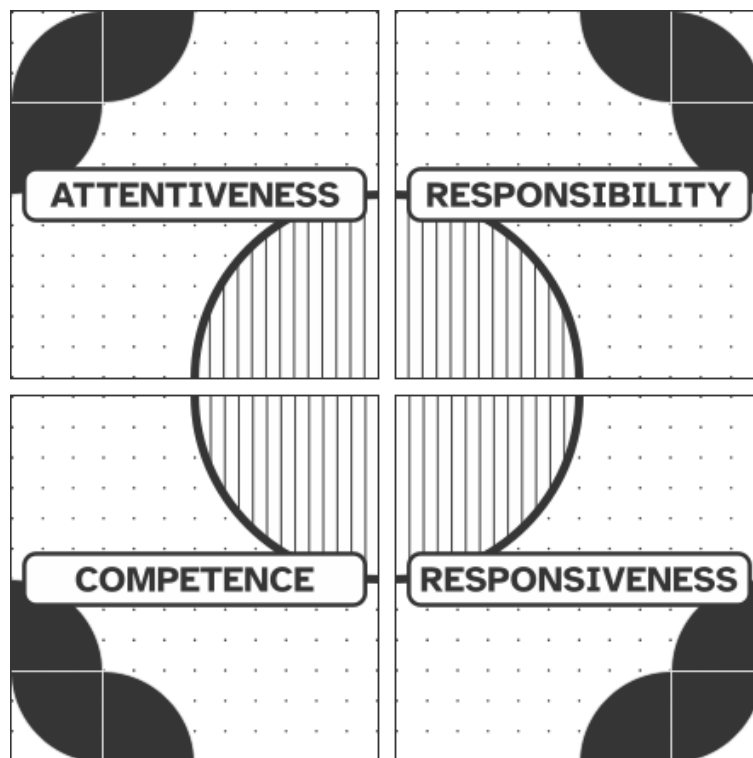


Figure 3: Backs of each card category, illustrating how they are interconnected.

Card Types (Figure 4):

- **Activity cards:** These are the crux of the toolkit. They introduce suggestions for activities to do individually and as a group, embracing both personal and collective participation. These cards can be augmented by active engagement with the corresponding exercises provided for each one.
- **Blueprint Cards:** These help you sketch out your path through suggestions of methods and roles to enhance discussions and actions. It is, however, important to highlight that these cards are not prescriptive but merely offer options to help you tailor the toolkit to your specific context.
- **Value Cards:** These help you reflect on important moral values and discuss their relevance to your project. They can serve as inspiration or guiding principles for decision-making and collaborative exploration.
- **Reflection Cards:** These help provoke discussion and encourage you to take time for thoughtful reflection on the questions posed, as well as share insights within the group. They should be taken as an opportunity to embrace personal introspection, learning, and building connections through shared reflections.

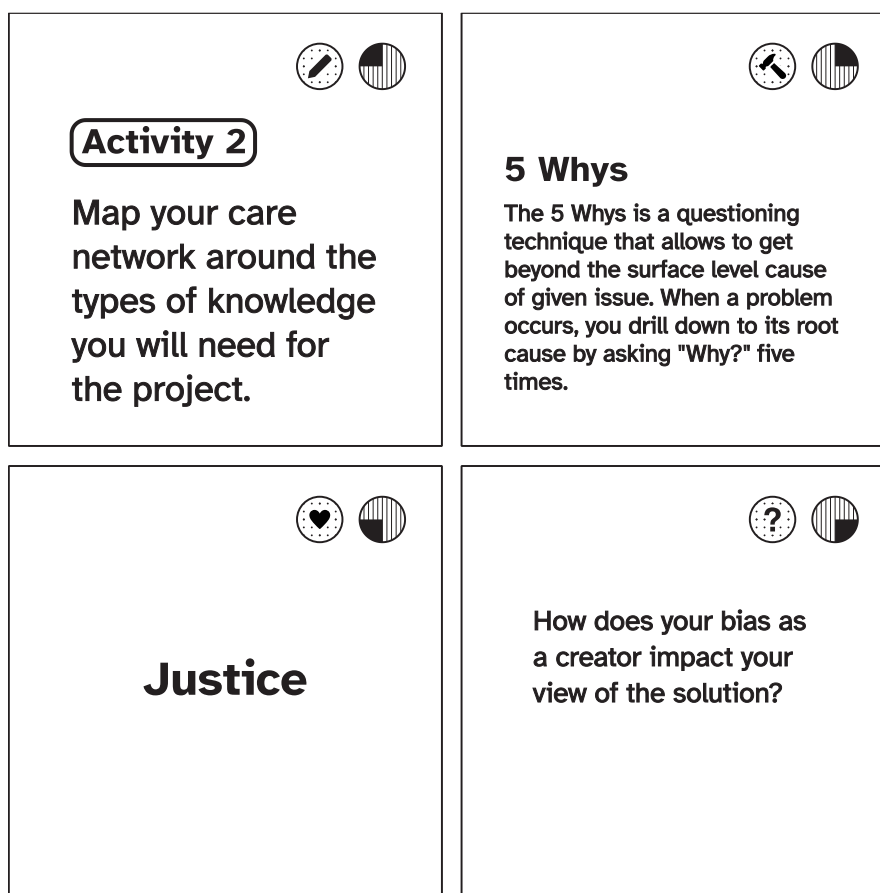


Figure 4: Fronts of an example for each card type.

Other Cards (Figure 5):

Starting Card: There is 1 card that does not belong to any category or type. This is the starting card.

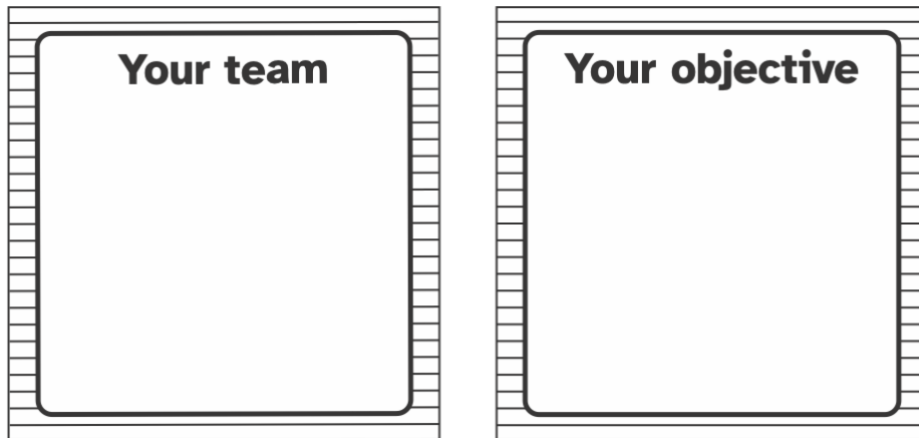


Figure 5: Front and back of the starting card, respectively.

Context Cards: Each category includes 1 optional card that does not belong to any type. Their purpose is only to offer context on the ethical foundation of that category (examples in Figure 6).

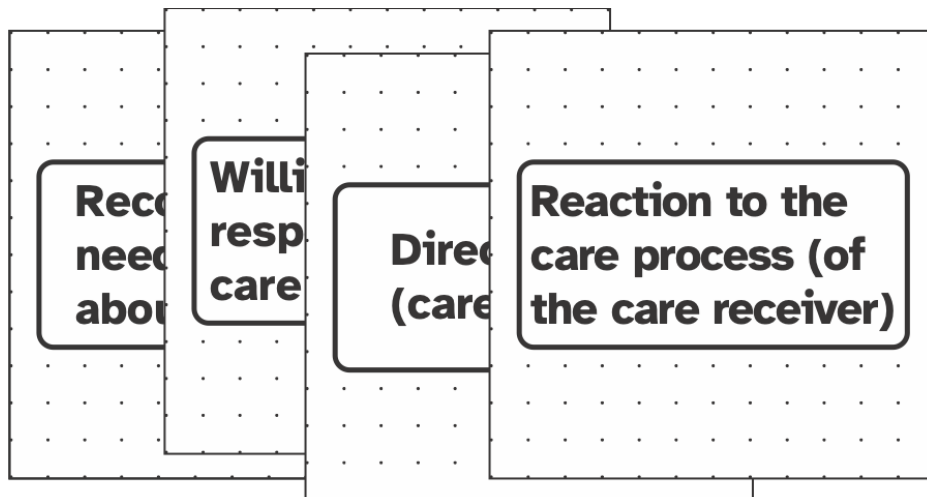


Figure 6: Fronts of each context card.

4.4.2 Layout

Size and Colour: The cards are intentionally designed to match the size of standard sticky notes, ensuring easy integration of personalized additions. The black and white colour scheme prioritizes print-friendliness, minimizing fully black areas while keeping in line with the design choices we felt most appropriate.

Font Choice: Atkinson Hyperlegible, a font designed by the Braille Institute for enhanced legibility, was carefully selected as another way to help facilitate clear communication.

Visual Metaphor: The four categories are visually interconnected in a circular pattern, symbolizing their interdependence and participation in a larger network of care. The connector-metaphor-turned-mechanic illustrates the dynamic interconnectedness at the core of the toolkit.

4.4.3 Flexibility

Modularity: Our toolkit operates on a modular system with four initial categories representing merely the foundational complexity. However, recognizing the nuanced nature of ethics, blank

connector cards of increasing complexity are included. These connector cards facilitate the creation of concept maps on the backs of the cards (Figure 7), allowing users to visualize and explore the interconnectedness of concepts to deepen discussions and explore broader ethical considerations.

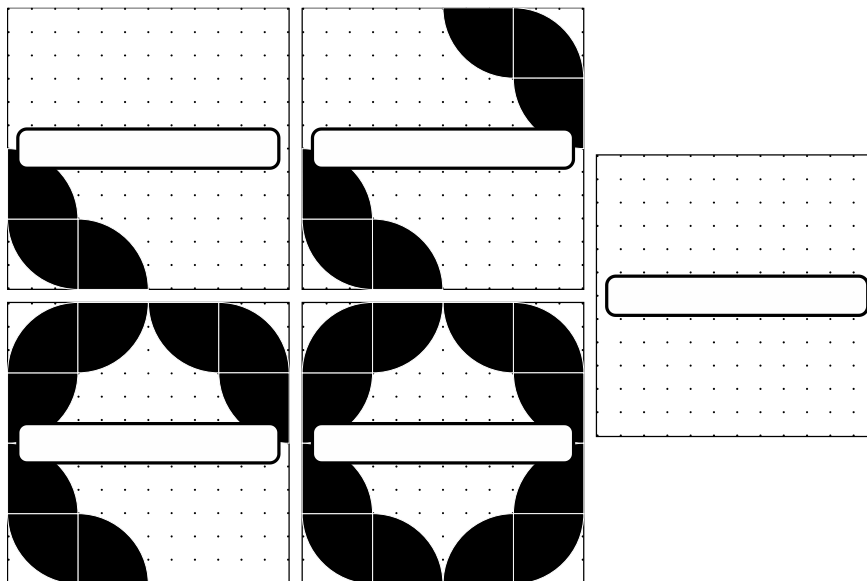


Figure 7: Backs of all the different blank connecting cards provided in the toolkit.

Card Types: Each card type within each of the four categories is distinctly identified by a corresponding icon, ensuring easy recognition and clear categorization (please refer to section 4.4.1).

Uniform Front Face: The front face of all the cards remains uniform across categories, only subtly identified by its category to encourage cross-pollination and exchange between categories. Cards can, in this way, easily be grouped both based on type and by category.

Activity Slots: Activities within the toolkit are designed to be supported by at least two card slots — one for the activity prompt and another for any of the other card types (blueprint, value, and/or reflection). This structure enables users to enrich discussions by selecting cards that resonate most with their context. Additionally, while each activity comes with a suggestion for a support card, we encourage you to fill slots with cards that better align with your preferences and enhance discussions within your group.

Customization: The toolkit was specifically designed to be highly customisable, and we urge you to adapt it to fit the unique needs, goals, and dynamics of your group as well as your project's context. Users are encouraged to customize the toolkit by adding their cards to the modular system or modifying existing ones. Blank versions of every card and activity sheet are provided (Figure 8).



Figure 8: A part of the printed toolkit.

4.4.4 Guidebook

We also include a guidebook alongside our toolkit (Figure 9), which serves as a navigational companion, providing users with a comprehensive resource to maximize the toolkit's effectiveness, following (Pettersen et al., 2023)'s work.

The guidebook introduces the toolkit's modular system, outlining the foundational categories of Attentiveness, Responsibility, Competence, and Responsiveness. It offers a detailed overview of each card type — Activity, Blueprint, Value, Reflection, Starting, and Context Cards — clarifying their roles in the ethical exploration process. Additionally, the guidebook delves into more detailed descriptions of each activity, providing users with nuanced insights into the suggested actions and discussions. It also serves as a reference for the toolkit's design elements, instructions for use, and community guidelines, emphasizing the importance of inclusivity and respect. Further, the guidebook extends into facilitating continuous improvement, community contributions, and future research directions, with the goal of fostering a sense of collaboration and ongoing development within the toolkit's user community.

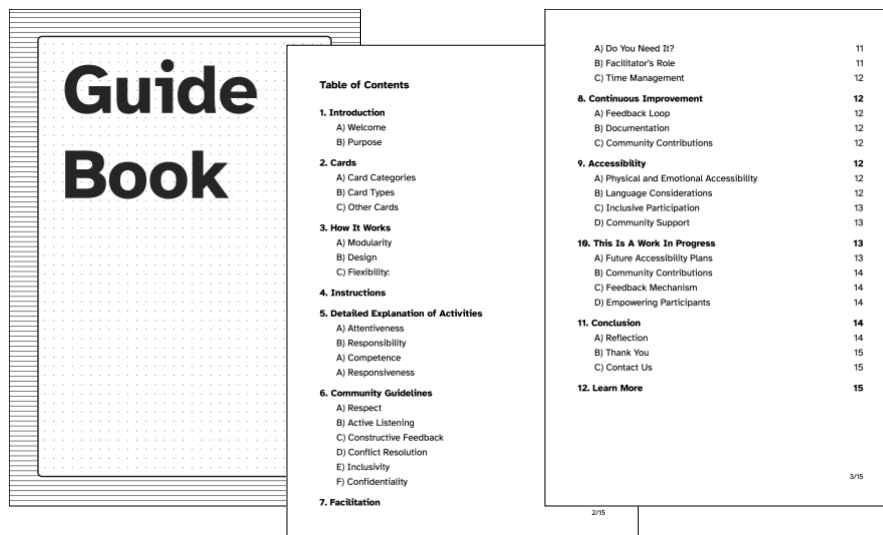


Figure 9: Cover and table of contents of the guidebook.

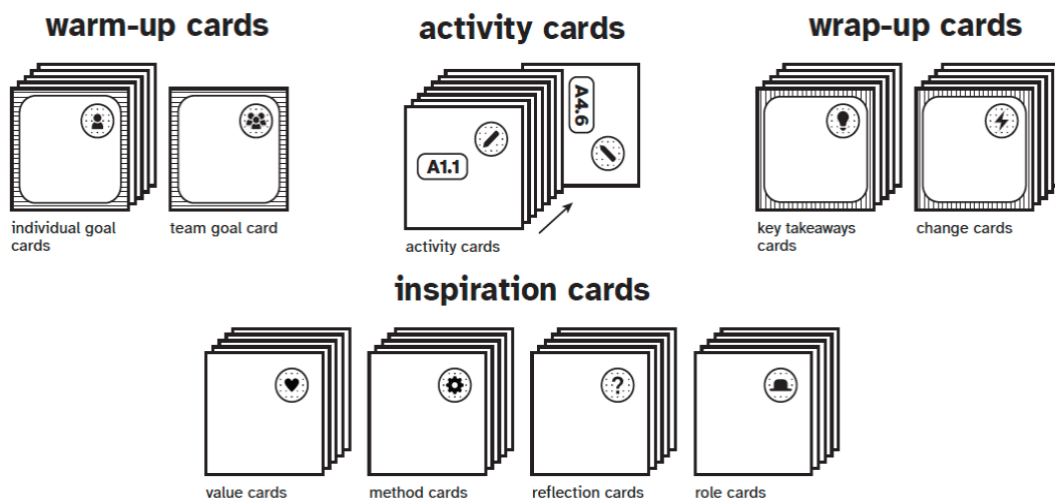
4.5 How to Use the Toolkit

The toolkit is intended to be used throughout the design process, in one or more sessions, and record its outcomes.

4.5.1 How to Set-up

Setting up the toolkit involves three simple steps:

- **Step 1: Separate cards by type:** warm-up, activity, inspiration, wrap-up.



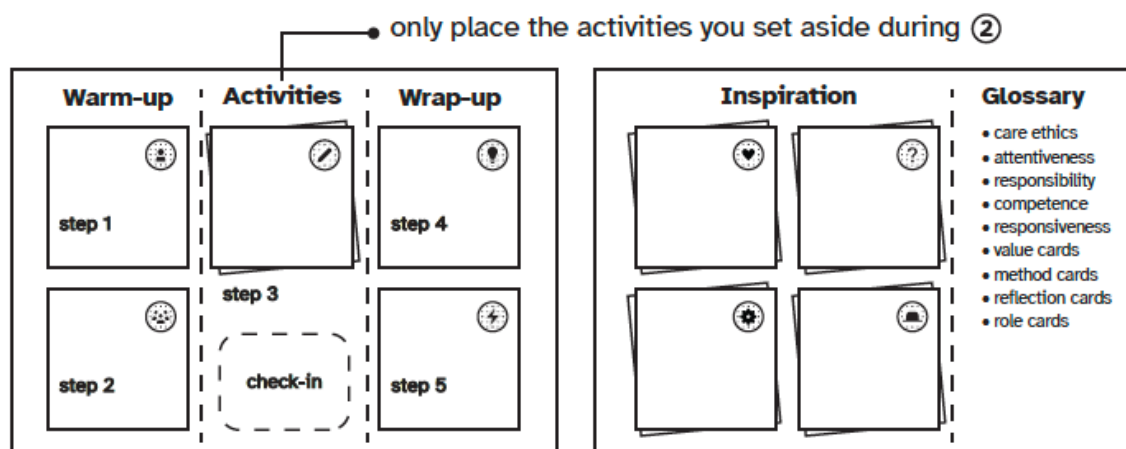
- **Step 2: Choose the activities** for the session.

The toolkit was not made to be fully explored in a single session. Participants should choose a set of activities that match their time availability, goals, and stage of the project.

We provide a curated set of activities with the corresponding time estimations. The curated set of activities includes project conceptualization, team-building, team values, a bit of everything in 1 hour, focus on project needs (attentiveness), building personal responsibility

(responsibility), focus on action (competence), focus on feedback and follow-up (responsiveness).

- **Step 3: Lay the board** and place the stacks of cards.



4.5.2 How to Use

Using the toolkit involves following the steps described on the board.

- **Step 0: How to Set-up** (seen previous section).
- **Step 1:** Each member fills in their **individual goal card** for the session, reads it aloud, and places it on the board.
- **Step 2:** Discuss individual goal cards and then summarise them into a **team goal card**.
- **Step 3:** Draw the top **activity card** and follow its instruction. **Repeat step 3** for all activity cards.
- **Step 4:** Each member fills in their **takeaway card** for the session, reads it aloud, and places it on the board.
- **Step 5:** Each member fills in their **change card**, reads it aloud, and places it on the board.

4.5.3 A Note on Customisation

The toolkit is designed to be highly flexible for situated usage (over context and time). Moreover, it is intended to foster adoption and appropriation. The set-up instructions encourage people to adapt the toolkit to their own needs. We provide blank templates for cards and worksheets in the printable files to facilitate the adaptation process. We also remind people that discarding or altering parts of the toolkit is acceptable and encouraged if it makes sense to their projects.

5 Future Research

Our feminist ethics toolkit embodies a commitment to continuous improvement and adaptability. Looking ahead, future research should, broadly, flow from the values underscoring the making of the toolkit, embracing collaborative and inclusive approaches. We thus plan on focusing on participatory refinement, application in commissioned research projects, and broadening its accessibility. This aligns with the toolkit's ethos of continuous improvement, customization, and commitment to fostering an inclusive and empowering ethical discourse within diverse communities.

5.1 Participatory Refinement

Future DCitizens Case Studies will involve citizens and communities in the ongoing enhancement of the toolkit. By employing participatory methodologies, we hope to expand and modify the toolkit to gather more insights, experiences, and further suggestions for improvement. This participatory approach ensures that the toolkit evolves in response to the diverse needs and perspectives of the communities it is intended to serve. Indeed, incorporating feedback loops and mechanisms for continuous improvement can create a dynamic and responsive toolkit that remains relevant across different contexts.

5.2 Application in Commissioned Community-led Projects

The toolkit's potential application in DCitizens commissioned research projects, as well as beyond, represents a promising avenue for future research. Investigating how the toolkit can be effectively integrated into commissioned research endeavours can provide valuable insights into its real-world impact and adaptability. Indeed, we hope to explore the toolkit's effectiveness in guiding ethical considerations, fostering collaboration, and contributing to the overall success of our commissioned research initiatives. This could prove invaluable to developing a guide of best practices and potential modifications needed for optimal integration into diverse research contexts. Immediate next steps would be to test it with our current Case Studies working with Balcão do Bairro and the Portuguese Refugee Council.

5.3 Crowd-sourced Translations

To enhance the toolkit's accessibility on a global scale, future research could also focus on crowd-sourced translations. Investigating the feasibility and effectiveness of translating the toolkit into multiple languages through collaborative efforts could make it more accessible to diverse linguistic communities. This initiative aligns with the toolkit's commitment to inclusivity, ensuring that people worldwide can engage with feminist ethics in a language that resonates with their cultural and linguistic background while keeping in line with the ethos of relationality which underscores the making of this toolkit.

5.4 Digital Platform Development

We also plan to delve into the development and optimization of a digital platform to support the toolkit. This includes ensuring compliance with accessibility standards, such as screen reader compatibility, keyboard navigation, and adjustable font sizes. Research in this area can contribute to creating a digital space that maintains the toolkit's integrity while leveraging the advantages of technology for wider dissemination and engagement, as well as underscoring the importance of digital spaces for accessible makerspaces (Allen et al., 2023).

5.5 Expansion

Additionally, we plan to facilitate a robust expansion of our toolkit to accommodate diverse ethical frameworks and contextual approaches. We aim to enrich the toolkit by incorporating additional cards that align with specific lenses, such as decolonial feminism, environmental concerns, or the ethics of working with children. These new cards could provide tailored activities, discussions, and reflections that align with the unique nuances of each ethical framework. To enhance accessibility, we envision grouping these cards according to specific lenses or approaches, creating a more streamlined and user-friendly toolkit. This approach acknowledges the importance of intersectionality and varied perspectives in ethical exploration, ensuring that users can easily navigate and customize the toolkit to address the specific ethical dimensions relevant to their community projects. Through ongoing collaboration and feedback, we aspire to create a toolkit that not only embraces diverse contexts but also becomes a dynamic and inclusive resource for ethical exploration across a spectrum of lenses and approaches.

6 Conclusion

The proposed toolkit stands as a tangible embodiment of the commitment to feminist ethics within the domain of HCI and as a constructive complement to digital civics. As articulated in the broader discussion, the toolkit represents a deliberate effort to weave feminist theory and praxis into the very fabric of ethical *frameworking*, challenging conventional notions of static objectivity prevalent in the field.

The toolkit's design, discussed here in detail, reflects a commitment to continuous improvement, customization, and inclusivity. Rooted in an intersectional feminist ethics lens, the toolkit aims to transcend prescriptive approaches, acknowledging the dynamic and multifaceted nature of ethical considerations in HCI. The incorporation of participatory methodologies additionally underscores the toolkit's responsiveness to diverse needs and perspectives. By allowing for adaptability and avoiding a one-size-fits-all mentality, the toolkit becomes a dynamic living tool for community-led, reflexive inquiry and action.

The envisioned future research initiatives, including participatory refinement, application in commissioned research projects, crowd-sourced translations, digital platform development, and contextual expansion, all revolve around growing the toolkit around a community of users. These aspirations amplify the toolkit's potential impact, not only within academic circles but also in real-world scenarios and across linguistic and cultural boundaries. Indeed, we hope our contributions will have value for anyone who interacts with our work. Even though we are primarily addressing local communities, we believe these interests the broader academic community, especially those studying ethics in HCI and those working to further community-led practices and/or embedded research

In the spirit of feminist methodologies, the toolkit is not presented as a dogmatic solution but as an adaptable and pluralistic instrument. Its primary goal is to contribute to fostering justice, equity, and inclusivity within a priori ethical deliberations that feel intuitive. As a work in progress, the toolkit invites ongoing collaboration, feedback, and suggestions, reflecting the dynamic and transformative potential inherent in feminist ethics within HCI.

It should not be left unsaid, however, that the outline we propose here is only one way of approaching the problem. Feminism is inherently plural, hence its value in works of dissent. In keeping with Bardzell and Bardzell's call for a feminist HCI methodology, we wish to build something adaptable rather than dogmatic — alive like we are. Because, ultimately, any work we do should strive to improve our collective life experiences in a social world.

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