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ARTICLE

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Un-disciplinary: making and staying with the trouble in unstable times

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Abstract

The concept of un-disciplinarity occupies a distinct position in relation to existing terms such as inter-, trans-, anti-, and post-disciplinarity by sitting boldly between disciplines, without rejecting them outright. Drawing on the work of Iain Biggs, Christina Sharpe, and the becoming undisciplined collective, together with the contributors to this issue, this introductory article situates the concept within a broader intellectual history of un-disciplining as a practice that calls for making and staying with the trouble. Un-disciplinarity operates on (at least) three levels – conceptual, methodological, and material. This is illustrated through examples ranging from queer theory applied to lichen biology, to the concept of quantum entanglement, which has migrated into the humanities, to bioluminescent trees proposed as urban light sources. On a practical level, un-disciplinarity celebrates mis-fitting, invites becoming comfortable with sitting uneasily, and calls for slowing down, and (at least considering) leaving things, such as ecosystems, landscapes and communities, un-tamed and un-disciplined.

Keywords

un-disciplinary; indisciplines; un-disciplined; inter-disciplinary; trans-disciplinary

*Indisciplinas: generar y permanecer en el problema en tiempos inestables***Resumen**

El concepto de indiscipliniedad ocupa una posición distinta respecto de los términos existentes, como la interdisciplinariedad, la transdisciplinariedad, la antidisciplinariedad y la posdisciplinariedad, al situarse claramente entre disciplinas, sin rechazarlas directamente. Basándose en el trabajo de Iain Biggs, Christina Sharpe y el colectivo becoming undisciplined, así como en los autores de este número especial, este artículo introductorio sitúa el concepto dentro de una historia intelectual más amplia de lo indisciplinario como una práctica que requiere hacer y seguir con el problema. La indiscipliniedad opera en (al menos) tres niveles: conceptual, metodológico y material. Esto se ilustra a través de ejemplos que van desde la teoría queer aplicada a la biología del líquen hasta el concepto de entrelazamiento cuántico, que ha migrado a las humanidades, y hasta árboles bioluminiscentes propuestos como fuentes de luz urbana. En un nivel práctico, la indiscipliniedad celebra el desajuste, invita al conflicto y requiere bajar el ritmo y (al menos considerarlo) dejar atrás las cosas indómitas e indisciplinarias como los ecosistemas, los paisajes y las comunidades.

Palabras clave

indisciplinario; disciplinas; indisciplinado; interdisciplinario, transdisciplinario

Introduction

“Alone, in our separate kinds of expertise and experience, we know both too much and too little, and so we succumb to despair or to hope, and neither is a sensible attitude.”

Donna Haraway

“To use the world well, to be able to stop wasting it, and our time in it, we need to re-learn our being in it”

Ursula K. Le Guin

Following Donna Haraway’s motto: “Alone, in our separate kinds of expertise and experience, we know both too much and too little, and so we succumb to despair or to hope, and neither is a sensible attitude” (Haraway 2016), the concept of un-disciplinarity builds on the idea that our current disciplinary system is in part responsible for the multiple crises that mark our Anthropocene as it fails to engage with the planet as a complex whole, and makes it difficult to create, and reproduce forms of knowledge that do not sit neatly within well-established categories.

The word has been used in a few other places so far, and we build upon this previous work.

In a post on his personal website – under a section called “Provocations” – artist and researcher Iain Biggs, described a lecture he gave to students in the Art&Humanities master’s program at the University of Dundee in 2018 (Biggs 2018). In this text, Biggs calls for un-disciplining art practices and finding ways to exceed current disciplinary, inter- and

trans-disciplinary thinking. It is Biggs’s account that most inspired the title and the call for this special issue.

Christina Sharpe’s book *In the Wake: On Blackness and Being* (Sharpe 2016) proposes un-disciplining as a necessary process for Black scholars to refuse academic methods and disciplinary norms that “reinscribe our own annihilation”. She argues that un-disciplining is necessary to produce what she terms *wake work*: the plotting, mapping, and collecting of archives of everyday Black life that existing disciplinary formations cannot adequately hold. Sharpe’s call that: “We must become undisciplined. The work we do requires new modes and methods of research and teaching; new ways of entering and leaving the archives of slavery, [...] that live into the present.” Sharpe (2016), has inspired others to think with the concept of un-disciplining, first within Black studies and later in the humanities more broadly. In an article titled “Something Wonderful: Undisciplinarity and the Future of Black Studies”, Brittany Proctor (2022) argues that Black Studies is inherently an undisciplined intellectual endeavor that destabilizes disciplinarity itself, because the history and present experiences of blackness cannot be studied within disciplinary bounds. Similar examples within Black studies literature include Modisane (2024) and Taïna Désert (2023). In 2019, a group of young artists created the becoming undisciplined collective and published becoming undisciplined: a zine (becoming undisciplined collective, 2019). The zine gathers essays, poetry, art, and photography as forms of knowledge that exceed what conventional disciplinary formats can hold. While Sharpe’s call was theoretical, becoming undisciplined showed how to put it into prac-

tice. An example of taking up Sharpe's invitation outside Black studies scholarship is a special issue in the journal *Victorian Studies* from 2022, titled "Undisciplining Victorian Studies", which called for the field to take Sharpe's call seriously, to address the discipline's birth within colonial systems of knowledge, and to "challenge multiple rigidities" (Chatterjee *et al.* 2020).

Finally, in 2008, the biannual conference of the Design Research Society was called *Undisciplined!* (Durling *et al.* 2008). Only two papers that year engaged with the concept directly, one describing work across design, computer science and digital fabrication (Atkinson *et al.* 2008) and another discussing ecological design as an un-disciplined practice (Joao Carlos Lutz Barbosa 2008).

Every one of these understandings of un-disciplinarity are useful. The work of Iain Biggs articulates why un-disciplinarity is important within the art field – with a focus on methodology, on definitions of art and on defining what un-disciplinarity is, which we will discuss further. The call of Christina Sharpe, and its subsequent responses, question the idea of discipline and discipline-ing in relation to the human body, as well to their connection to histories and institutional ways of knowledge production. Sharpe's work shows that the process of disciplining, as it is similar to taming, can involve different degrees of violence.

Un-disciplinarity differs slightly from other related terms such as inter-, multi-, trans-, or post-disciplinary.

Interdisciplinarity brings two or more disciplines into dialogue around a shared problem while each retains its identity and methods. Researchers contribute their expertise across boundaries but return to their home discipline when the collaboration ends – the disciplines are enriched by the encounter but not fundamentally transformed. Interdisciplinarity is perhaps the mode that institutions are most comfortable with, accommodating collaboration without threatening the structures that organize academic knowledge (Barry & Born 2013; Klein 1990). *Transdisciplinarity* goes further, seeking frameworks and methods that transcend existing disciplinary boundaries. Oriented towards complex real-world problems that no single discipline can address alone, it often involves non-academic stakeholders alongside researchers and aims not merely to enrich existing fields but to produce knowledge that supersedes them (Gibbons *et al.* 2010; Gibbs & Beavis 2020). The goal is to create new understandings that cannot be reduced back to their disciplinary components. *Anti-disciplinarity* takes a more radical stance, rejecting disciplines altogether. It sees disciplinary boundaries as artificial, politically constructed divisions that fragment knowledge and serve institutional interests rather than true knowledge production and understanding of the world (Kvangraven & Dyveke Styve 2024). Where inter- and trans-disciplinarity work with or beyond disciplines, anti-disciplinarity refuses to treat them as a useful starting point. *Post-disciplinarity* describes a condition rather than a methodology – it argues that we are already living and working in a moment in which disciplinary boundaries are dismantled. It does not prescribe how to work across disciplines but observes that the traditional disciplinary or-

ganization of knowledge is being eroded under pressure from complex global challenges, digital transformation, and the increasing porosity of academic and non-academic knowledge production (Barry & Born, 2013; Lash, 2007).

The word *un-disciplinary* sits on the opposite side of *disciplinary*, but is slightly less distant from it than *anti-disciplinary* as it does not propose that disciplines are entirely irrelevant (it is gentler than that), only that important things happen when the idea of discipline is probed. In Iain Biggs' words, "It's unwise to reject disciplinarity outright. Firstly, because that tends to encourage political and religious fundamentalisms. Secondly, because the dualistic thinking that reduces everything to an either/or choice belongs to the same binary thinking that's embedded in disciplinarity itself" (Biggs 2018). Acknowledging that interesting things happen in between disciplines is similar to what inter- and trans-disciplinarity propose. But un-disciplinarity also implies being un-disciplined. As Black studies scholarship shows, being un-disciplined is the opposite of being disciplined, controlled, tamed, and made to fit neatly inside a pre-existing category. By rejecting being disciplined, un-disciplinarity is different from inter- and trans-disciplinarity. Un-disciplinarity does not aim to replace these other terms, but to add to them, not to "subtract reality, but add reality" (Latour 2004).

Being un-disciplined means staying with the trouble and it can also involve making the trouble as it alludes to disobedience, and to developing and deploying frictions and provocations (Raptis *et al.* 2017). While trans-disciplinarity starts from the idea of solving problems, un-disciplinarity proposes that there are valid (knowledge-producing) endeavours which do not start from problem-solving, and do not even aim to problematize. These include, for example, creating aesthetic experiences. Un-disciplinarity makes space for humour, coolness, cuteness and creepiness and other such categories. Un-disciplinarity accepts that deep disciplinary knowledge is still required, but it also invites us to constantly question the limits, methods, and established ways of being within a given discipline (ways of seeing, doing and knowing). Un-disciplinarity makes space for "improvisation, without a desire for perfection or fear of failure" (Biggs 2018) and invites misapplying, misappropriating, using, reusing and embracing a hacker culture spirit.

If we are to take Ursula K. Le Guin's advice to relearn our being in the world, un-disciplinarity cannot happen without collaboration and listening deeply to the many others, and so un-disciplinarity is slow, similar to inter- and trans-disciplinarity, because learning is difficult and relearning even more so. Understanding other ways of knowing, seeing and doing takes accepting to be uncomfortable. Being un-disciplinarity means proposing ideas that "sit uneasily" (Toumaras 2026) in relation to various orthodoxies.

The aim of this special issue is to create a space for presenting un-disciplinary work, and a site for reflecting on what kind of ideas, concepts, methods and non-methods the notion of un-disciplinarity invites, evokes and sustains.

1. Examples of un-disciplined practices

Un-disciplinarity can occur at different levels, and below we exemplify a few: conceptual un-disciplinarity involves using unusual ways of thinking, perhaps developed within a certain discipline or outside any disciplinary structure, to re-conceptualize various phenomena. Methodological un-disciplinarity refers to reappropriating, using and misusing various methods in curious ways. While material un-disciplinarity refers to reassessing materials in designing, making and caring for the physical world.

1.1. Conceptual un-disciplinarity

In the book *Entangled Life*, mycologist Merlin Sheldrake discusses how queer philosophies helped biologist Toby Spribille reconceptualize the way in which he was thinking about species when studying lichens (Sheldrake 2020). Lichens are composite organisms formed as a symbiotic relationship between fungi and algae or cyanobacteria. Neither organism could survive alone, yet together they form a resilient, slow-growing life form that inhabits bare rock, bark, and other harsh surfaces. Lichens grow on rock by secreting acids that slowly dissolve the mineral surface. Over long periods of time, lichens break down rock into the first thin layer of soil, transforming inorganic matter into organic matter. Lichen symbioses are found in almost all terrestrial ecosystems and contribute to a significant proportion of the overall biomass (Spribille *et al.* 2022). Thinking about and studying lichens was difficult because they do not squarely fit in existing established taxonomies in biology – they are neither fungi, nor algae, which is why “lichens were moved around in the classification systems of life for over a century, including to the mosses, to the fungi, and to a standalone group transitional between fungi and algae” (Spribille *et al.* 2022). In Spribille’s words: “The human binary view has made it difficult to ask questions that aren’t binary. We ask questions from our cultural context – and this makes it extremely difficult to ask questions about complex symbioses like lichens because we think of ourselves as autonomous individuals, and so we find it hard to relate”. Queer theory, applied to lichens, helped scientists reconceptualize biological categories, which in turn helps think in a non-binary way about other living, complex systems – in terms of collaboration rather than thinking of individuals (Gilbert *et al.* 2012; Griffiths 2015). The symbiont and the ideas of symbiosis have been well and long theorized in the humanities, as in Donna Haraway’s words: “Bounded individualism in its many flavors in science, politics, and philosophy has finally become unavailable to think with, truly no longer thinkable, technically or any other way.” (Haraway 2016). This happened because these scientists were un-disciplined enough to put on glasses that let them see unusual things in unusual ways.

Another example of what can be considered conceptual un-disciplinarity is the idea of entanglement, so often used in the humanities

and the arts, to think about the environment and ecology. Entanglement originates in quantum physics, where Erwin Schrödinger coined the term *Verschränkung* in 1935 to describe a phenomenon in which two particles become correlated such that the quantum state of each cannot be described independently of the other, regardless of the distance separating them. The term migrated to the humanities most influentially through the work of physicist and philosopher Karen Barad, whose theory of agential realism proposed entanglement as an onto-epistemological condition. In this understanding, entities do not exist as separately determinate individuals prior to their relations, but they emerge through intra-actions, inseparable parts of phenomena in which matter and meaning are mutually constituted. Identities are always formed in intra-action – nothing exists outside its entanglements with other entities, human and non-human alike (Barad 2007).

A third example of what can be considered conceptual un-disciplinarity is rethinking technological infrastructures – from the idea that technology is light, clean, and that it sits in the cloud, to thinking about it as “mineral minds”, as Filinich proposes (Filinich 2026). In this view, artificial intelligence must be understood as a mineralized, plastic and relational process – carved from the Earth, shaped by geological infrastructures, and constituted through distributed socio-technical relations. Central to the argument is the idea of *fissure* – the point at which extractive logics break down and alternative epistemologies may emerge. Unlearning is articulated as a practice of opening intelligence to plurality and techno-diversity (Filinich 2026).

1.2. Methodological un-disciplinarity

Perhaps among the most straightforward examples of methodological un-disciplinarity is design thinking – a term that has taken on a life of its own and is now so popular and so widely applied – from NASA space exploration, to many other forms of engineering – that many designers themselves think the term is being changed beyond recognition (NASA 2017; Scoresby *et al.* 2021). Although less popular than design thinking, art-based research methods are also celebrated and have been recommended for use in trans-disciplinary research and when engaging with complex or wicked problems such as sustainability, where multiple stakeholders, knowledge domains and potentially competing interests have to be negotiated (Horvath, Jochum *et al.*, 2023; Horvath, Löchtefeld *et al.* 2023; Sipos 2009).

Other examples of methodological un-disciplinary examples include Margaret Watts Hughes development of the eidophone by using figures developed from the vibrations of her own voice, (Rühse 2026), and un-disciplining drawing as a practice in art education (Villanueva González 2026). In “Indisciplining the Unknown”, Toumaras writes that “the term *indisciplinarity* [...] describe[s] collaborative practices that move across artistic, archival, ethnographic, and technical registers without settling fully into any one disciplinary frame” (Toumaras 2026).

1.3. Material-based un-disciplinarity

This is perhaps the most straightforward form of un-disciplinarity and, to some extent, includes the other two, depending on how the term *material* is understood. It refers to material matters, to hacking, tampering with, reappropriating, growing, and repairing materials by recognizing that the logics of mining and extractivism are fundamentally different from those of growing.

Examples abound, but perhaps among the most original are Alberto Estévez's early 2000s experiments creating bioluminescent trees and proposing their use for public illumination in cities under the Genetic Barcelona Project (2003-2006). The project proposed replacing conventional street lighting with genetically modified lemon trees whose leaves emit natural light through the Green Fluorescent Protein (GFP) gene, sourced from the *Aequorea victoria* jellyfish and successfully introduced into the trees' DNA in 2005 in collaboration with geneticist Agustí Fontarnau (Estévez 2007). The project was motivated by the need to reduce electricity consumption – Barcelona alone spends ten million euros annually on street-light maintenance – and later evolved into the Biolamp series (2007-2010), which used bioluminescent bacteria to illuminate an entire apartment without any electrical installation, a first in architectural history (Estévez 2006).

2. Staying un-disciplined

Staying un-disciplined today means balancing patience with the urgency we feel to respond to the different unfolding crises, as patience is the main condition for care and repair. Slowing down to repair, heal and care for are necessary to address part of the environmental emergency: they are necessary to grow things such as mushrooms, lichens, kombuchas, and others which have all shown important promise in being alternatives to plastics, concrete or leathers while at the same time being able to absorb radiation, and remove pollutants from soil (Horvath *et al.* 2025; Rühse & Horvath 2024); they are also required to unlearn things and to curate forms of knowledge which are not established. Unlearning – in Filinich's account – is a practice of attending to fissure and inhabiting it as a possibility (Filinich 2026). Un-disciplinarity also relies on critical hope, as an action-oriented response to despair or “pessimism in the intellect and optimism of the will” (Antonini 2019).

Doing un-disciplinary work calls for designing (for) transitions, but perhaps these transitions need not be abrupt ruptures. While un-disciplinarity recognizes the urgency of the changes that are necessary, it also recognizes that there is value in some of today's current systems and so un-disciplinarity calls for challenging, and subverting from within by implementing steady change that compounds over time – inhabiting fissures (Filinich 2026). Un-disciplinary is necessary because, in Latour's words, “history changes quickly and there is no greater intellectual crime than to address with the equipment of an older period the challenges of the present one” (Latour 2004).

Staying un-disciplined also means leaving things un-tamed and un-touched in a very practical and sometimes political way: landscapes and ecosystems, local communities and traditional ways of living. To think twice, to think with, and to think through the practice of futuring.

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Anca Horvath is currently an assistant professor in Computational Media and Arts at the Hong Kong University of Science and Technology (GZ) where she leads the **@A: Art, Technology, Architecture** research group. She is also a guest researcher with the Research Laboratory for Art and Technology at Aalborg University in Denmark. In her work, she investigates the effects of emerging technologies such as AI, computational fabrication and biotechnologies on creative practices, concentrating on architecture and design. Anca uses design-based research and reflective practice as main methods of inquiry.