The Ox Salon is an experiment in reformulating the salon context as a venue for post-disciplinary exchange.

This written outputs was produced following Ox002 salon conversations. Contributors that have consented to be credited are listed here.

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**Salon discussion participants** [listed below]

The purpose of this ‘Salon report’ is twofold: to provide some written documentation for the recent Ox Salons on Epistemic Trespassing as well as creating an opportunity to fold in some additional remarks and observations.

Update: we’ve just opened this for community feedback, please comment away! We would love for the conversation to continue between salons.

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**Event Information**

OxSalon002 (c) & (d) :: Epistemic Trespassing
(c) Theory Branch :: Tuesday 4th August :: Virtual
(d) Praxis Branch :: Wednesday 5th August :: Virtual

Supporting materials :: are.na :: Instagram :: Twitter :: Trust Oxsalon.pubpub.org

“Epistemic trespassers judge matters outside their field of expertise. We should doubt that trespassers are reliable judges in fields where they are outsiders.”

*Nathan Ballantyne, Mind (2019)*

**Participants**

*Theory branch* - Nathan Ballantyne, Laura Lotti, Craig Warmke, Kei Kreutler, Valentin Golev, Wassim Alsindi

*Praxis branch* - Oliver Beige, Kelsie Nabben, Matthew Lutz, Primavera de Filippi, Wassim Alsindi

Document compiled by Wassim Alsindi from salon notes, interpretation & additional theory.

**Materials mentioned**

Gross’ book on Rorty: *The Making of an American Philosopher*

Cohen-Cole’s *The Open Mind*: cold war politics and the sciences of human nature

Stoljar’s *Philosophical Progress: In Defence of a Reasonable Optimism*

Stenger’s *Ecology of Practises* - mentioned in external discussions
Waypoints

- The epistemic creep of fields, professional epistemology specialisation / withdrawal

- Epistemic pictures
  - Representational abstractions (Okayama)
  - faithful (Daston, Gallison)
  - manifest (Sellars)

- Epistemic Trespassing
  - Pluralism vs expert culture
  - Field, Disciplines, Polyepistemology & Post-Disciplinarity
  - Post-Structuralism and Transversality
  - Exceptions & edge cases?
    - Epistemic formation: What if “no field” / fuzzy boundaries?
    - Where are the boundaries and will they stay there?
    - Who decides?
  - Can trespassing be reframed as a potential reclamation of agency from epistemic orthodoxy?
  - Can a work trespass while critiquing trespassing?
    - The “egregious case” of Electronic Coins

- Counterfactual interlocutors
  - “Troll?” “Epistemic diaspora?”
  - As distinct / overlap with ETs

- Unpossessed evidence
  - “Epistemic gap” / “analogical distance”

Against Copernicus? Epistemology’s Inward Turn

If it’s guidance for inquiry that people need, they will probably look elsewhere. The “logic” of academic specialization suggests why epistemology has drifted away from the wider world of inquiry. The evolution of academic fields depends on the making of distinctions.

Over and over again, the world of knowledge has been broken into smaller pieces, like miraculously dividing loaves of bread. New distinctions create new disciplines, subdisciplines, and sub sub disciplines. The evolution of increasing differentiation and segmentation has produced professional epistemology … see that practitioners find within their field’s boundaries a set of questions and answers that is largely for them alone. Their questions, or perhaps their answers, are apparently not of much relevance for the conduct of inquiry anywhere else.

Chapter 1 “Epistemology and Inquiry”
Knowing Our Limits
Nathan Ballantyne, OUP 2019

Against Copernicus? Epistemology’s Inward Turn

“Knowledge is not made for understanding; it is made for cutting.”

Michel Foucault
If - as Foucault intimated - the goal of collating, classifying and systematising knowledge should be a compression (or more precisely a selectively reductive abstraction) how can we resolve this with enduring and contrary trends observed in the academic practice of epistemology? Our systems of knowledge are typically structured (by accident and design alike) to be additive with constant revision necessary to postpone obsolescence in rapidly evolving domains of inquiry.

Does this tension bear some responsibility for academic epistemology's counter-Copernican turn as it withdraws from interaction with the wider world? Taking epistemology as the study of knowledge, ideas and beliefs is the professional epistemologist not somehow self-motivated (going further, discipline-pilled) to move towards further individuation, stratification and discretisation of knowledge systems? In combination with entropic bias favouring divergence and hyperspeciation in various types of information networks, any structuralist approach to the classification of knowledge appears susceptible to death by a thousand taxa - the epistemic equivalent of a DDoS or spam attack.

There are also long-standing structural problems inside academic philosophy. Very often different schools of thought will stake out narrowly-defined and mutually exclusive positions without much evidence and occupy them for generations - imagine a sort of scorched-earth discourse where no progress can take place. More generally, one can ask; what drives output in legacy institutional contexts? Incentives are set out in such a way that careers are most successfully lived out in a conservative manner, not straying too far from the canonical path charted by one's epistemic forebears in that particular ivory tower. Indeed in each of these facultat towers there exists a proverbial epistemic ladder, which is your linearly benchmarked career gauge. Climbing the ladder provides rewards - chairs, tenureship etc, but are there also adequate incentives to move between these established structures?

What Is Evidence?

A pragmatic approach is required when judging the quality or veracity of evidence, and more broadly what can be considered appropriate evidence in an interdisciplinary or trespassing context. In many settings it can be unclear what appropriate evidence should be, how to formulate a “testable” scenario or even a general formulation of the question we wish to ask is. If the hypothesis isn't formulated, how can we know what the needed evidence will be?

There are so many shades of grey with evidence as well, particularly in experimental fields which rely on statistical averaging to “demonstrate” phenomena to an arbitrarily acceptable degree of confidence (see p-hacking). If verification of hypotheses depends on confidence levels there will always be question marks over quality and sufficiency of evidence, and therefore the replication/retraction...
crisis in experimental disciplines will continue to cause major ethical issues in scholarly publishing. Some philosophers of science maintain that there are no confirmatory tests, only disconfirmatory ones. The goal of practical inquiry is not necessarily to arrive at a stable “notion of truth”, rather to approach a level of confidence in a justified belief which is sufficiently close to the hypothesised truth being investigated or measured. There is always a risk of relying too heavily on metrics and paying too much attention to self-anointed benchmarks. Goodhart's Law is perpetually in play, arguably stronger than ever when combined with the GIGO-ification of today's post-scarcity digital information landscape - a Shithart’s Universal Law of Terrible Heuristics if you will. Progress towards goals is also heterogeneous, proceeding in both linear cadence through Kuhnian “normal science” as well as through Foucauldian discontinuities accelerated by interlocutors or trespassers for example.

Epistemic Pictures

When the real things are not around, we make do with representations and substitutes.

Representations help us make the most of our limits. When we can’t reflect on our epistemic principles, a kind of representation may come in handy. A principle can be “mirrored” by states that only partially capture its information. A partial mirror is not a perfect copy of the principle, but it is a fair approximation.

Epistemic Pictures

Maps are not the territory, even at the best of times. When the picture is epistemic, we may have a very low degree of knowledge regarding the terrain that we intend to navigate. Representations can take different forms from scale reproductions (Borges’ 1:1 map in “On Exactitude in Science” for example), faithful representations such as anatomical drawings to speculative, de/hyper-real and absurd abstractions (Okayama Art Summit map, pictured above). Though epistemology deals in the trade of knowledge, “truth” and “truth value” are something else altogether. Perhaps one reason why cranks and conspiracy theories are so prevalent in the present day is due to the lack of tolerance of epistemic speculation in public discourse. The role of creative practice in epistemic transgression is also significant - artists as epistemic nihilists take arbitrary information from various knowledge
traditions and decontextualise through various abstractive processes to synthesise conceptual, technical, visceral and experiential outputs.

(Side note - *Salon001 was on abstractions!*)

“Science, art and religion are all about making the invisible visible. Supposedly the domain of science is what's measurable, the domain of art is what's experienceable but not measurable, the domain of religion is what is beyond the realm of experience. There's a huge overlap, and unsurprisingly one anecdotally experiences them to be highly contingent.”

*Oliver Beige (edited)*

The historian of science Peter Galison uses the metaphor of trading zones - borrowed from anthropology - to rationalise the emergence of radar technology in Cambridge MA in the mid 20th century. The necessary baseline conditions of a broad base of intellectual talent and adequate (public or private) funding were easy to meet given the geographical concentration of educational, military and financial institutions. The principal issue encountered at first was one of lacking a common language, and out of necessity a simple blended language (between field theory and engineering tools) was arrived at. Key element of the trading zone is a place where people can go to discuss trans-disciplinary matters - a trespasser's redoubt.

“Two groups can agree on rules of exchange even if they ascribe utterly different significance to the objects being exchanged; they may even disagree on the meaning of the exchange process itself. Nonetheless, the trading partners can hammer out a local coordination, despite vast global differences. In an even more sophisticated way, cultures in interaction frequently establish contact languages, systems of discourse that can vary from the most function-specific jargons, through semispecific pidgins, to full-fledged creoles rich enough to support activities as complex as poetry and metalinguistic reflection.”

*Peter Galison, 1997*

‘Social’ sciences such as ethnography trade in the creation of these epistemic pictures through the observation of values, norms, communities and processes in different fields and topics of inquiry. According to the research code of ethics, researchers are explicitly required to respect the norms and behaviours of the community you trespass upon. Can other fields borrow trespasser’s affordances and best practices from the epistemic ethics of anthropological methodologies?
Trespassing can be defined broadly as the act of navigating through unfamiliar terrain with lessened regard for the customs, norms, principles and traditions of that territory. How can we gain understanding of the territory as we traverse it, if our epistemic pictures are also inadequate?

Where are disciplinary boundaries helpful for trespassing? Can we even know we are trespassing a boundary until we are there? As Deleuze and Guattari intimated, the limit can never be the limit. As there must necessarily be something beyond the limit, the “limit” is also necessarily subsumed within the interior. Perhaps Foucault’s notion of permeable discontinuities is of use here, where an interiority can be opened to forces from the outside.

One way of framing the difference between an epistemic trespasser and a post-disciplinary epistemic anarchist (in Feyerabendian terms) is in how much the wanderer pays heed to the “culture” of the territory that they are navigating. A more granular understanding of the intentions, purposes, confidence levels and epistemic transversality of trespassers would be useful.

Possible differentiators to a trespasser’s “quality” - towards a typology of trespass:

- *Transience & intent* - an epistemic *forager* humbly sampling the richness in another domain or a *settler* looking for lands to colonise and exploit?
• **Reciprocity & hysteresis** - is it easier to trespass certain boundaries in one direction than another? Do people with backgrounds in technical fields trespass into humanistic and creative fields more often than the other way around?

• **Rights of way** - exchanges across disciplinary boundaries can also be carried out with the help of a third party playing the role of translator, shepherd or guide. Using collaboration and cooperation in this way, it may be possible for a trespasser to gain sufficient credibility to carry on their exploration of unfamiliar areas to realise their goals and synthesise something of value.

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**ET: Confidence, Fields & Disciplines**

...be immodest, dogmatic, or arrogant. Trespassers easily fail to manifest the trait of intellectual humility and demonstrate one or another epistemic vice.

Second, it’s useful to distinguish between people holding confident opinions and those investigating questions in another field. I assume it can be epistemically appropriate for people to look into questions beyond their competence, even when it would be inappropriate for them to hold confident opinions. I want to examine cases where people do hold confident views about topics beyond their intellectual grasp.

Let us now sharpen our focus on the idea of epistemic trespassing. I invoke two terms of art: fields and experts. Let’s say that a field is fixed by a set of questions or topics. …that is not to say there are always sharp cut-offs between fields.

A field can be fixed by an extremely narrow set of questions, so what is called a field here may not be coextensive with the ordinary boundaries of any academic or scientific discipline.

Expertise is a status of thinkers and it is relative to a field at a particular time. Let’s say thinkers count as experts in a field only if they possess two things at one time: first, enough relevant evidence to answer reliably their field’s questions, and, second, enough relevant skills to evaluate or interpret the field’s evidence well. While novices or laypersons can sometimes reliably accept answers to a field’s questions by trusting expert testimony, the experts themselves answer on the basis of their evidence and skills.

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**Interdependence and contingency**

A number of definitions invoked in the Epistemic Trespassing paper - in particular fields, disciplines, experts, expertise - are interdependent which places constraints upon further concretisation. What if the epistemic formation is incomplete or the domain boundaries are undergoing a “revolutionary” reorganisation? More importantly, who decides and how? Is this another possible avenue for obfuscated gatekeeperism in the academy as epistemic gerrymanderers rearrange frontiers to their favour? Particularly in situations undergoing or preceding epistemic formation surely we can see the egress of trespass as a positive act, reclaiming agency from epistemic orthodoxy?

“Possibly we’re in the process of experiencing a new relationship between theory and practice. At one time, practice was considered an application of theory, a consequence; at other times, it had
an opposite sense and it was thought to inspire theory, to be indispensable for the creation of
future theoretical forms. In any event, their relationship was understood in terms of a process of
totalisation.

The relationships between theory and practice are far more partial and fragmentary...from the
moment a theory moves into its proper domain, it begins to encounter obstacles, walls, and
blockages which require its relay by another type of discourse - it is through this other discourse
that it eventually passes to a different domain.

Practice is a set of relays from one theoretical point to another, and theory is a relay from one
practice to another. No theory can develop without eventually encountering a wall, and practice is
necessary for piercing this wall.”

Gilles Deleuze, *Intellectuals & Power transcript (1972)*

**ET: Hybridized Questions**

Normally, when we call people "experts" concerning vast professional or academic disciplines, we use the term to *ascribe a social standing, not genuine epistemic expertise*. Expertise in my sense is an intellectual competence that is consistent with fallibility. Someone can be an expert about a field where the relevant evidence is incomplete or misleading, or where the tools for evaluating the evidence are unreliable, so that even a flawless expert performance won't track the truth.

We need to see how these connections cause experts unwittingly to overstep their limits. This easily happens when experts investigate what I call hybridized questions - ones addressed and answered by combining evidence and techniques from two or more fields. Fields are fixed by a set of questions, and expertise is fixed by bodies of evidence and skills needed to answer a field's questions. But note that sometimes fields overlap or converge and come to share a question.

This may happen in one of three ways:
(i) the evidence required to answer a question reliably comes from two or more fields
(ii) the skills required to evaluate the evidence well come from two or more fields
(iii) both the relevant evidence and the relevant skills required to answer a question reliably come from two or more fields.

One response is to obtain further expertise.

Experts can retreat to the relative safety and security of their disciplinary trenches. The idea is that experts will refrain from confidently accepting answers to hybridized questions once they recognize they are not cross-field experts. Instead, these modest thinkers might only confidently accept answers to "narrower," non-hybridized subquestions.

*Chapter 8 “Epistemic Trespassing”
Knowing Our Limits
Nathan Balamyne, OUP 2019*
ET: Higher-order evidence & analogical distance

Passing judgment on a question we know is hybridized looks dubious. Why do we confidently hold a view when we lack relevant evidence, skills, or both? Learning we're in one of the three situations should trigger a sort of intellectual perimeter alarm in our thinking.

Here we are trespassing on somebody else's property, after climbing over a barbed wire fence. Let's split before any guard dogs show up.

Recognizing we have trespassed is a kind of higher-order evidence. It tells us about our competence to judge well in particular circumstances. Specifically, it tells us about the manner in which we have reached our belief in p. It is not evidence bearing directly on p's truth value, but it tells us about the reasonableness of holding particular attitudes toward p.

The trespasser does not believe her field's evidence and skills are sufficient to properly answer the hybridized question. The trespasser knows the question she answers has been hybridized; she thereby has reason to doubt the sufficiency of her single-field resources to answer the question properly.

Trespassers are a crafty bunch, of course, and they may resist reasoning in the way I've described. They may grant they are in one of the three reflective cases but insist they have not thereby flouted any epistemic norm and don't have an undefeated defeater. How could that work?

The "analogical distance" here concerns the similarity between the context of "old learning" and the context of "new learning."

Chapter 8 "Epistemic Trespassing"
Knowing Our Limits
Nathan Ballantyne, OUP 2019

ET: On confidence & ignorance

The Dunning-Kruger effect is a bias influencing metaknowledge. People who lack first-order knowledge often lack second-order knowledge about their lack of knowledge. Psychologists have described this as a kind of intellectual "double curse." As Justin Kruger and David Dunning note, "the same knowledge that underlies the ability to produce correct judgment is also the knowledge that underlies the ability to recognize correct judgment. To lack the former is to be deficient in the latter."

Trespassers' lack of competence leads their self-assessments to be systematically off-track, and so I predict that many trespassers will be oblivious to their lack of good judgment. For trespassers, their incompetence is for them an "unknown unknown," as former U.S. Secretary of Defense Donald Rumsfeld might put it. Self-ignorance about trespassing is dangerous. Sometimes trespassers will have enough knowledge to give them false confidence that they are not trespassers but not enough knowledge to avoid trespassing.

It is apparently easier for us to become less sure of our views and perhaps more doxastically open, than to expand our expertise. The strict limits for gaining expertise make social and institutional responses to the Problem of Epistemic Trespassing indispensable. Trespassing is a problem for individual thinkers, but it points toward solutions that make use of our capacity for working together.

All of us are trespassers at heart. If we hold trespassers in contempt, do we condemn ourselves as well?

Chapter 8 "Epistemic Trespassing"
Knowing Our Limits
Nathan Ballantyne, OUP 2019
On confidence, ignorance and counterfactuals

Epistemic trespassers of the overconfident variety may lack awareness that they are trespassing in territory which their skills and expertise do not translate well to. How might we end up with such misplaced views? Sometimes we cannot even comprehend the extent of our lack of knowledge. As a bias on meta-knowledge, epistemic trespassing is in some senses similar to the Dunning-Kruger “ignorance of ignorance” self-appraisal bias. Self-recognition of trespassing behaviour (possibly manifest as a variant of impostor syndrome) requires higher-order criticality which ought to largely preclude other meta-knowledge biases such as Dunning-Kruger.

We can regard counterfactual interlocutors as ways of helping us understand limitations in the pictures of the world we carry with ourselves. Such interlocutors are a semi-hypothetical construct which can be invoked to create intellectual contingency in an idea, concept or knowledge tradition being challenged. These can be differentiated into the “unhelpful variety” which may map onto internet trolls, as well as constructive examples such as devil’s advocates to help us be less confident about our theories. Descartes’ denier & Maxwell’s demon are pertinent examples of abstract tooling to clarify concepts and ways to think about their own beliefs. Interlocutors may not necessarily be intimidating or aggressive, an interlocutor can behave in an outright positive and constructive manner but still significantly change the epistemic picture through disproving of weak and spurious domain-bounded theories and through the infliction of damage to the credibility of their proponents.
“There is a deceiver - I know not who he is - most highly powerful and most highly cunning, who always industriously deceives me. If he is deceiving me then without doubt I also am. And he might deceive me as much as he can, he will still never effect that I would be nothing, so long as I shall cogitate that I am something. So that - all things having been weighed enough, and more - this statement were, finally, to be established: "I am, I exist" is necessarily true, so often as it is uttered by me or conceived by the mind.”

René Descartes, Meditations 11:3

Unpossessed Evidence

This problem challenges many of our controversial beliefs about politics, philosophy, ethics, history, and religion, among other topics. Given the rising tide of available research and commentary and the narrowing of disciplinary expertise, one person can usually scoop up only a small share of the relevant evidence for a single topic.

No surprise there. We have access to mind bogglingly vast stockpiles of information stored in libraries and archives. We can discover an overabundance of facts and figures and arguments and commentaries, waiting on computer servers connected to the internet, summoned at once to tiny screens people carry around in their pockets.

Any one of us can easily learn that we have only a small part of the relevant evidence for many controversial questions. And yet, normally, many of us confidently answer such questions, and believe that our answers are entirely reasonable, despite knowing that our evidence is partial.
Superpersonal Inquiry & Wonderment

The teachers are everywhere. What is wanted is a learner
Wendell Berry, What Are People For?, 1990

Confident beliefs can give us meaning and comfort. When our beliefs are challenged, we may feel anxious and insecure. Confident believers on opposing sides of controversial questions will often dislike one another, but whoever insists that nobody really knows what they're talking about is perhaps more upsetting still.

Let's suppose we are guided by the method and the upshot is that we stop reveling in our controversial opinions, adopting greater doxastic openness instead. What comes next? The method is revisionary. In order to bring our inquiry into step with the method, some of our important beliefs, our belief-forming habits, and our attitudes toward inquiry must change. But changing these things may be destabilizing. Recall the old Cartesian image that compares our beliefs to a building in need of repair. (W - also Kuhnian “paradigm shifts”)

One commonplace answer is that inquirers can also believe they contribute to what I call a superpersonal inquiry. Even when they can't hope to attain reasonable beliefs or knowledge for themselves, they can hope that others will reach the mark. Superpersonal inquiry involves a group of people who are separated from each other in time, all making contributions that help answer some question using evidence. Their contributions accumulate over time. At the end of the process, some inquirers may be positioned to gain reasonable beliefs or knowledge.

Intellectual ventures tend to be risky. Out of the happenstance and confusion of our own inquiry into difficult questions, we hope something good will come. But it isn't always easy to hold out hope for success. Are we part of superpersonal inquiries that will succeed? Or are we involved in projects that will become yesteryear's fashions and fads?

Chapter 11 “The End of Inquiry”
Knowing Our Limits
Nathan Balintyne, GUP 2019

Superpersonal Inquiry

Superpersonal inquiry is a powerful concept to help us comprehend longer time horizons of knowledge advancement. Collective sense-making on large-scale problems spread throughout time and space may be the only way that certain complex challenges can be addressed, and there may be no current clear path to a solution to the problem. Indeed the earlier strands of thought culminating in major successes may have had no conception of the final hypothesis, goals and outcomes. Can we say that some attempts (of arguable success) at “institutional superpersonal inquiry” exist, for example in large scale fundamental science projects such as CERN?

Superpersonal inquiry helps to provide some reason to continue if a scholar is doubtful as to the matter of interest. Sensations of awe and wonder are also very common in providing the necessary motivation to scholars to continue on fruitless navigations. For example, there are hard and enduring problems in metaphysics with no clear answers or real senses of progress in decades. Scholars engaging in superpersonal inquiry (knowingly or otherwise) are engaging in the process of refining and improving knowledge even if their most visible contributions don’t make it. Philosophers often have little evidence for the views that they hold, and superpersonal inquiry helps to overcome these roadblocks by refocusing away from individual concerns instead towards the greater goal of a collaborative macro-effort across time.

Can we think about an attempt of epistemic formation of a new field or discipline as a meta form of superpersonal inquiry? This notion is discussed briefly with an ongoing case study at the end of this
An “egregious case”

Can a work critiquing epistemic trespassing simultaneously engage in it?

Bitcoin is a highly interdisciplinary topic of research and often requires expertise in more than one field. So we should sometimes expect researchers in one field to have skills or evidence relevant to a question that researchers in other fields lack. We find such an uneven distribution with respect to the status of the Chain Definition. Many bitcoin developers and computer scientists already know that the definition fails. But relatively few others do. And, in my experience, even the experts who understand why the Chain Definition fails often lack the philosophical tools to understand Satoshi’s original claim about electronic coins.

We can ask a number of philosophical questions about bitcoin, including some about bitcoin’s relation to money. But these questions come downstream from the more basic but equally philosophical question about what a bitcoin is in the first place.

Bitcoin sits at the core of a new and highly interdisciplinary field of study where more confusions await us. *This field of cryptoeconomics will not succeed without legal scholars, mathematicians, economists, and computer scientists speaking across disciplinary boundaries. But this very condition for success will draw some to trespass into disciplines for which they have little or no training. Some will overreact from an understandable desire to protect their turf. Many others talk past each other with superficially similar terminology. And, of course, some will attempt to exploit the confusion for personal gain. Going forward, those who specialize in clarifying concepts and drawing distinctions could play an invaluable role.*

An “Egregious Case”

Can a piece of scholarly work which critiques epistemic trespassing and highlights its problematics whilst simultaneously engaging in trespassing? The “egregious case” of *Electronic Coins* suggests so, as it applies analytic philosophical approaches to formally characterise and critically engage with a crude early attempt at a technical definition of Bitcoin which has since been appropriated for political ends by particular cryptocurrency subcultures.
Post-Disciplinariness

Can we think of some “trespassers” as really being poly-epistemological or even post-disciplinary? From a post-structuralist perspective, what we view as trespassing may simply be an abstraction artifact (in other words a low-dimensional projection) due to regarding the territory with orthodox epistemic lenses. Why retain the outmoded husks of legacy siloes unnecessarily, even in outline form?

The heterogeneities in structure, form and cadence in different paradigms of knowledge productions would necessitate disciplinary boundaries ossifying at different paces, which would over time either be successfully defended by orthodox proponents or trespassed by more adventurous inquirers. In the 17th century, most leading scientific theories came from outside formal institutions, with this trend having completely inverted by the late 20th century. The momentum (if not direction of travel) of this institutional inertia appears to have inverted in recent times, so perhaps the current century will see a resurgence of independent inquiry and para-academic institutions.

According to Andrew Goffey's interpretation, the goal of transversality - as a conceptual replacement for transdisciplinarity - is to break down the boundary between analysis and desire. Guattari saw transversality as a mechanism with which to transform institutional repositories of knowledge, to open them up. This ability in finding ways to gain knowledge through trespassing even if it is absurd or illogical from an epistemic perspective is important from a viewpoint beyond rationalist confines. Furthermore, there are circumstances in which loaded or sensitive topics must be dealt with.
employing praxis-oriented inquiry, outside of institutional contexts and traditional epistemic approaches as the exploration of those ideas have become politicised within (for instance) academia.

### Post-Structuralists on Transdisciplinarity

Everyone is aware that the complexity of the objects of research in the domain of the human and environmental sciences demands an interdisciplinary approach. But the encounter between disciplines does not permit a decompartmentalization of the problematics and modes of expression brought together. Signs are made from one domain to another in the absence of any in-depth communication. How is a bridge to be established between living eco-systems? The stakes are considerable, as they condition the possibility of any real efficacy in these matters.

Scientific ecology, applied to the environment, will remain powerless if it is not relayed by new social and political components, and the latter will in turn vegetate in immobility and conservatism without a profound transformation of mentalities.

**Interdisciplinarity, which I prefer to call transdisciplinarity, in my opinion thus passes/takes place by a permanent reinvention of democracy at different stages in the social field. Transdisciplinarity must become transversality between science, the socio, aesthetics and politics.**

At this point in history, humanity is for the first time responsible for its destiny as a species, and beyond that, for all living species and the future of the biosphere. But it is worth adding a necessary protection and optimal development of incorporeal species to living species. Cultures and forms of sensibility alike are threatened. Science cannot content itself with studying these evolutions passively. It is required to intervene, to commit itself.

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**Aside on Cryptoeconomic Systems - a case study in attempted epistemic formation?**

A putative new field “cryptoeconomics”, located at the junction of a number of traditional disciplines is possibly taking shape. The advent of Bitcoin in 2008 set in motion a (delayed but eventual) concrescence of academic interest across a number of traditionally siloed faculties. Cryptoeconomics draws researchers and domain knowledge from technical disciplines - protocol engineering, cryptography and distributed systems - alongside economics, law, complexity science and philosophy. In such a context “native” norms and traditions have not been established and scholarly infrastructure is lacking in many areas.

The forthcoming [Cryptoeconomic Systems journal](https://doi.org/10.1177/0033764150507045) published by The MIT Press aims to address many of these “epistemic gaps” through an explicitly interdisciplinary approach. This is somewhat aided by the fact that the host organisation - MIT’s Media Lab - is widely known as an anti-disciplinary environment and going further back, MIT has a long history of being a "trusted neutral ground" for the exchange of ideas across geographies, disciplines and ideologies.

At first it was hard to even get a conversation going among researchers from different backgrounds, as each discipline’s legacy training and selection mechanisms produces a largely homogeneous output of early career researchers who are highly specialised in the current epistemic vogue but suffer from weighty epistemic baggage due to institutional structure and and career incentives to stay intra-faculty.
The journal attempts to encourage researchers to be intellectually adventurous and is researching mechanisms to reward and recognise researchers and peer reviewers for straying from their epistemic ladders to engage in interdisciplinary work.

A way forward?

A useful distinction can be drawn from empiricist Hans Reichenbach’s work, where knowledge-making activities were separated into contexts of discovery - ideation, creativity and generation of novelty - and contexts of justification - verification, confirmation, rationalisation - with both needed for a healthy community of inquirers to disentangle what’s known versus what’s justified to believe.

“Trespassers are important for moving research into contexts of discovery, while justification of the claims they discover appears to require a more stable epistemic base of operations from which to conduct careful inquiry.”

Nathan Ballantyne (edited conversation remarks)