© Journal of Higher Education Outreach and Engagement, Volume 29, Number 2, p. 111, (2025)
 eISSN 2164-8212

New Forms of International Community-Engaged Learning: Unveiling the Benefits and Limitations of a Digital Open-Source Global Justice Investigations Lab

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Abstract

Globalization and digital technology have transformed how knowledge is shared, but they have also amplified the spread of misinformation—challenges now intensified by advances in artificial intelligence. To navigate this landscape, students must develop digital literacy and learn to critically assess open-source materials. One key area is digital open-source investigation (OSI), which teaches students to identify, collect, verify, and analyze materials like news reports, social media posts, and satellite imagery. These skills are essential for addressing contemporary global issues. This article explores the benefits and limitations of Utrecht University's 2023–2024 digital OSI Lab, developed within the framework of international community-engaged learning (ICEL). Using qualitative analysis, including student surveys and reflections, we found that students of this lab not only gained a deeper understanding of global justice but also developed greater awareness of their own positionality within complex global contexts—an outcome fostered through structured reflection and experiential learning.

Keywords: International community-engaged learning, positionality, reflexivity, reciprocity, open-source investigation

Increased globalization and the widespread integration of digital technology into all aspects of our lives have ushered in an unprecedented era of knowledge dissemination, giving rise to an "information revolution" that has, in many ways, democratized access to information (Cummings, 2016, para. 6). Simultaneously, these developments have been accompanied by the rise of misinformation and fake news, with current developments in artificial intelligence posing new challenges (Aïmeur et al., 2023; Koenig, 2019). It is thus imperative that students cultivate skills that allow them to harness technological advancements and learn how to critically analyze digital open-source materials, that is, material that is freely available online (Livingstone et al., 2023). One aspect of digital literacy involves learning digital open-source investigation (OSI) techniques. Through OSI skills, students can learn to identify, collect, document, verify, analyze, and evaluate open-source material such as news reports, social media posts, and satellite images. Being able to understand and dissect the wealth of openly available information is an indispensable skill in tackling contemporary global challenges (Dubberley et al., 2020).

Realizing the need to develop these skills, Utrecht University set up a Digital Open-Source Global Justice Investigations Lab in 2023–2024, which combines digital innovation with new media literacy. The interdisciplinary and cross-level (combining bachelor's and master's students) lab is based on five key concepts, ranging from substantive and skills-based concepts to pedagogical and psychological ones. These five key concepts inform the design and implementation of the lab: human rights and global justice; digital OSI skills; inter-

disciplinarity; international community-engaged learning; and trauma and resilience. Of these, the pedagogical approach of international community-engaged learning (ICEL) has enabled students to work together with societal partners on real-world global justice projects.

ICEL has been defined as an experiential education process involving collaborative efforts among students, teachers, and societal partners to tackle global challenges (see Introduction to this special issue). It is deeply rooted in global social justice aims, challenging students to grapple with real-world issues, engage in cross-cultural dialogue, and better understand their responsibilities as both local and global citizens (Bringle & Hatcher, 2011; Grusky, 2000; Latta et al., 2018). Concepts that are particularly relevant within ICEL work are reflectivity and positionality, as they encourage deeper understandings, critical thinking, and personal growth, as well as reciprocity, which highlights the importance of fostering equal exchanges and authentic relationships between students and their societal partners.

In this article we seek to unveil the benefits and limitations of a digital open-source investigations lab grounding itself in the framework of ICEL. Through qualitative analysis of scholarship and empirical data, specifically student surveys and student reflections, we aim to answer the following research question: How can a digital open-source investigations lab, grounded in ICEL, facilitate the development of student learning, especially in relation to the concepts of positionality, reflexivity, and reciprocity? The first section of this article provides a literature review of ICEL and its purposes, including the concepts of positionality, reflexivity, and positionality therein. The next section details our methods of data collection and analysis. Thereafter, we present our findings, focusing on the benefits and limitations of an ICEL-based course structured around digital open-source investigations. Based on the data, we conclude that students experience greater awareness of their positionality within complex problems by means of reflection, as well as a moderately deepened understanding and interest in the topic of global justice. Furthermore, by acting within an OSI course based on reciprocal exchanges with well-regarded nonprofit partnerships, students are able to practically contribute to international global justice aims while averting the negative consequences of working directly with vulnerable populations. We conclude that students are indeed highly motivated to contribute practically to real-life justice goals; however, mutual communication and coordination are key in fostering reciprocal relationships between students and partners. Finally, we lay out recommendations and future lines of research.

International Community-Engaged Learning

Traditional community-engaged learning allows students to connect theory with practice and provides a space for students to reflect upon their experiences (Bringle et al., 2006). It is premised on reciprocity and respect between students, teachers, and societal partners (the "community") and requires special attention to the learning objectives, activities, assessments, and outcomes, with emphasis on learning through experience. Community-engaged learning is closely connected with service-learning, a term widely used at Anglo-American universities. Whether referred to as service-learning or community-engaged learning, it is an approach to learning that has taken hold across universities around the world (Kenny & Gallagher, 2002, p. 15; Meijs et al., 2019). Within Europe, the growth of experiential learning is largely in response to a shift in how universities view their roles in a wider (global) community and the desire of students to have strong connections to society in order to address wicked global challenges.

In addition to the more specific and traditional types of community-engaged learning that focus on students working with local community partners, a new and specific type of community-engaged learning has emerged: international community-engaged learning or ICEL (also referred to as global service-learning). As noted above, ICEL can be defined as an experiential education process in which students, teachers, and societal partners work together on challenges in an international or global context. The international context can refer to many different things. It may include students physically traveling to an international location for their experience, but it may also involve students working at the university with an international partner via regular online communication. Additionally, it may include students working with a local

partner but on subject matter that has international implications or scope.

As with traditional community-engaged learning, ICEL programs aim to foster relationships of closeness, equity, and integrity (Bringle et al., 2009; Crabtree, 2008), as well as partnerships of reciprocity that include collaboration, respect, mutual benefit, and trust (Crabtree, 2013; Hammersley, 2012; Keith, 2005). In such reciprocal relationships, both the students and partner organizations contribute to each other's goals. Fostering reciprocal, genuine relationships between university actors and the community, however defined, requires an approach to learning as not just a vehicle for the transformation of privileged university students, but about creating mutual benefits that genuinely engage with societal partners and their work (Crabtree, 2013; Hammersley, 2012; Keith, 2005). Reciprocity is furthermore crucial in pursuing social (and global) justice goals together with critical reflection (Asghar & Rowe, 2016), and is also central in the scholarship of ethical international community engagement by universities (Bosio & Gregorutti, 2023; Hartman et al., 2018). It is thus important that students gain an awareness of the impact of their learning and are able to position this impact within a greater global context and in relation to their partner organization.

Participating in ICEL should contribute to a student's sense of civic place in a global context. ICEL has a responsibility in raising global, social awareness among those participating. Here, one can think of cultural understandings, power relations, and (global) social responsibility (Hartman & Kiely, 2014). ICEL also has the potential to disrupt or challenge existing knowledge–power structures and relationships by, for example, adopting a decolonial stance and disrupting North–South colonial relations and assumptions (Smaller & O'Sullivan, 2018). A fundamental component of the ICEL model of learning is reflection. Academic literature demonstrates that learning can be reinforced through reflective activities for students (Veine et al., 2020), such as by keeping reflective journals (Deeley, 2022). By reflecting on the real-life impact of their international societal engagement activities and positioning themselves within this setting, students are believed to gain a greater sense of themselves and their (global) civic responsibility.

The ability to reflect, or to be reflexive, is crucial within research, education, and learning, and is central in an ICEL context in understanding complex global issues (Gillis & Mac Lellan, 2010, p. 20). Reflexivity is the ability to examine and react to one's own emotions, motives, and environment (Cambridge University Press, 2021). It requires one to critically assess themselves and those around them. It requires a consideration of one's influence on an investigation (Holland, 1999) and, importantly, evaluation of how power relations operate (Reid et al., 2017). According to Grusky (2000), reflexivity is shown when one is able to consider one's place on axes such as wealth, gender, and economic factors such as class. Accordingly, taking stock of one's own position becomes essential for a wide variety of reasons from the ethical to the epistemic. Positionality is, therefore, closely connected with reflexivity. According to Darwin Holmes (2020), positionality describes one's worldview and the position one adopts about research or knowledge. It involves the researcher (or student) becoming aware of who they are, their values, beliefs, and assumptions. This awareness is important because self-identifications and experiences of marginalization or privileges influence the way one approaches the world, including research questions, data collection, and analysis (Massoud, 2022). Critical thinking is required to achieve the transformations sought by community-engaged learning programs oriented toward social justice (Asghar & Rowe, 2016). Such critical thinking can result in power-shifting dialogues only when students can meaningfully reflect on social issues, which involves the often uncomfortable or painful awareness of one's own privilege (D'Arlach et al., 2009).

Other related concepts, such as intersectionality, privilege, and oppression, also become important when learning about positionality and reflexivity. Learning about these concepts is particularly useful because cultural schisms and diverging expectations in the ICEL context can lead to asymmetrical exchanges. According to Kiely (2005), community service, or ICEL-informed work, has to intentionally analyze dynamics such as racism, oppression, and privilege at work in community organizations. Reflection is thus a key facet at the heart of ICEL and necessary for a critical approach (Hammersley, 2012). This reflection is exactly what causes the "discomforts" that arise in situations where asymmetries are uncovered through self-positioning and reflection (Sharpe & Deare, 2013). This discomfort is not some-

thing to be shunned or to turn away from: Realizing one's position in global inequalities is inherently uncomfortable, but necessary if ICEL is to truly become a reciprocal practice between the university and (global) community. ICEL not only requires reflexivity and self-positionality from practitioners but also introduces students to critical perspectives. ICEL centers reflexivity and positionality within the learning process to encourage deeper understanding, critical thinking, and personal growth.

The Open-Source Global Justice Investigations Lab

The Global Justice Investigations Lab at Utrecht University, a large public university based in The Netherlands, embraced the label of ICEL for a number of reasons. First, unlike other types of learning approaches that encompass working societal partners, such as challenge-based learning (Leijon et al., 2022) and transdisciplinary learning (Budwig & Alexander, 2020), the ICEL label explicitly emphasizes the international or global component in the work carried out by the students with their societal partners. This international aspect was important to our lab given its global justice emphasis. Second, we opted for the label of ICEL because of its focus on community *engagement*. We see the work as a reciprocal relationship between students and societal partners and feel the term "engagement" captures this reciprocity better than the word "service," making the nature of the relationship explicit to students. That said, we recognize that these terms are often interchangeable when it comes to the practices behind the labels. Finally, our university has also decided, from an institutional perspective, to adopt community-engaged learning as one of its pedagogical labels, and ICEL fits well within this institutional frame.

The Global Justice Investigations Lab, as a program rooted in the learning of new technological and digital skills, equips students with the tools needed to closely engage with pressing real-life global justice issues around the world. Technology is rapidly dissolving many of the spatial and language barriers that previously isolated and limited individuals and communities from engaging with and knowing each other. In this new era of connection, the Global Justice Investigations Lab is able to bridge divides across national boundaries and allow students to research and meaningfully contribute to global justice issues without having to physically move across borders.

One of the fundamental and ground-breaking aspects of OSI is that it lends anyone the skills to meaningfully investigate and report on real-life issues using the wealth of open-source data available to us online. Here, one can think about geolocating a video of an attack by military personnel against civilians posted on social media (Swain, 2018), using satellite imagery to track systemic fire damage and fire haze across geographic boundaries (Plain, 2024), or using social media to help collect information on potential extrajudicial executions or attacks against journalists, geolocating online material and potentially identifying individuals involved (Arms, 2023). The skills that the lab offers inherently allow students to continue engaging in these issues after the end of the program. This temporal aspect is especially relevant for the longevity of the aims of ICEL, as more traditional international approaches can easily result in short-term results in student awareness of global problems, but not lead to any further learning after the program has terminated and students are back in their home environments.

The lab has three components: (1) team-taught lectures covering topics such as global justice, human rights, positionality, critical thinking, and framing; (2) skills trainings and workshops covering different types of digital OSI skills such as geolocation, chronolocation, internet scraping, and flight and vessel tracking; and (3) the opportunity to apply OSI skills to real-life scenarios by collaborating with a societal partner working on global justice issues. In the 2023–2024 academic year, our teaching team comprised six teachers from four different faculties across the university, including one specializing in open-source investigation techniques. Two teachers have a background in law, one in criminology, one in media and communications, one in cultural anthropology, and one in information sciences, specifically artificial intelligence. For the first iteration of the lab, we had 25 students: 11 master's students (4 male, 7 female) and 14 bachelor's students (5 male, 9 female) in their second or third year from across different faculties and programs. The lab is a 7.5 European Credit elective course running over two periods from early November to mid-April—approximately 20 weeks. The students are expected to spend 10 hours per week on

the course, which allows them to combine it with their mandatory courses. We partnered with four NGOs from the global justice field who use OSI in their work, focusing on exposing either human rights violations or environmental harms. In total, there were five project teams (with one NGO having two project teams), with approximately five students per lab project. Students could indicate their preference for a lab project, and every student was placed with their first choice.

From the start of the design process for the lab, we focused on building in reflexivity and positionality as key aspects of ICEL. We also sought to emphasize the importance of uncertainty and discomfort in the learning process (Lamnina & Chase, 2019), especially as associated with work on global justice issues. To this end, our syllabus starts with a quote from Barnett (2007):

> The student is perforce required to venture into new places, strange places, anxiety-provoking places. This is part of the point of higher education. If there was no anxiety, it is difficult to believe that we could be in the presence of a higher education. (p. 147)

We discuss this quote in class and mention its significance periodically throughout the course of the lab. We believe that reminding students of the learning value of uncertainty is helpful because the lab, with its real-world connections, demands students to work outside their comfort zone in often uncertain environments.

The lab is organized by pairing students with a societal partner after students receive coursework on OSI competencies. Allowing students to become comfortable with the relevant practical skills before entering into a partnership allows for a more equal and reciprocal relationship to emerge. It gives students confidence in their exchanges with the partner while also equipping them with the means to produce an end product beneficial to the partner. This configuration avoids placing disproportionate responsibility to teach upon societal partners, and instead places them in a guiding role. The partner and student mutually benefit by putting students in a position where they can apply their skills and contribute to the partner's justice-oriented goals. The nature of an OSI-oriented lab, focused on digital skills such as verification, lends itself to student engagement with global justice without risking an entrenchment of power imbalances that often results from short-term student involvement with disadvantaged or oppressed host communities (Hammersley, 2012; Hartman et al., 2018; Latta et al., 2018). Instead, students were able to work collaboratively with partners that address systemic injustices, which, from a social change perspective, are those that can redistribute power rather than entrench it (Gillis & Mac Lellan, 2010, p. 2). By learning and applying practical OSI research skills, students are able to gain the benefits of ICEL (awareness of global justice, increased sense of global citizenship) without risking the perpetuation of colonial dynamics incompatible with ICEL's (transformative) social justice goals (O'Sullivan & Smaller, 2023). Additionally, through OSI, students can responsibly engage with grave global injustices (air strikes, state-sanctioned persecution, environmental crimes) in communities that may otherwise be too vulnerable to directly engage with the harm themselves. However, operating on these terms does mean that the reciprocity sought after is largely found between the student and partner organization rather than directly between the student and the community. The capacity of the partner organization to enable students to engage with a community's issues is therefore vital, requiring strong communication and coordination. We found that communication between students and the partner organization is a key factor in fostering reciprocity and thus fulfilling student learning goals.

In terms of our learning objectives, one of the four outlined objectives is focused specifically on the ICEL work. It states that after completing the course, students will be able to critically appraise and reflect upon open-source investigations in the global justice field as well as their role therein, and reflect upon their own work, attitudes, and collaborations in the course. To ensure constructive alignment between the learning objective, lab activities, and assessments, students were asked to work on a disciplinary self-reflection exercise, to perform three critical self-positioning exercises, and to reflect in groups at check-in moments. They were also asked to submit eight reflection logs and a final reflection report, which were assessed based on a reflection rubric. With this constructive alignment in mind, we sought to better understand the benefits and limitations of the lab with regard to ICEL. Below we detail our methods of data collection and analysis.

Methodology

The data analyzed for this research includes an anonymized baseline student survey, an anonymized endline student survey, and student reflection logs, which were not anonymized. In the months leading up to the launch of the lab, the teachers worked with educational specialists from Utrecht University's Education and Training department to develop the baseline survey and endline survey. The surveys included questions using a Likert scale as well as open-ended questions. The questions covered the five key areas underpinning the lab: human rights and global justice; digital open-source investigation skills; interdisciplinarity; international community-engaged learning; and trauma and resilience. For the purposes of this article, the baseline survey and responses crafted in relation to ICEL included both general and specific questions, as indicated in Table 1.

The endline survey asked general and ICEL-related questions as shown in Table 2.

In addition to the baseline and endline student surveys, we asked the students to submit reflection logs throughout the course. They were asked to submit one- to two-page reflection logs every 2 weeks, totaling eight logs, as well as a final reflection report of maximum four pages (or in another form agreed upon with the teacher, such as a vlog or mind map). The students received prompts or questions to guide their reflections, such as "How did you feel before or after the meetings with societal partners?" They were also encouraged to think about power relationships on both micro and macro levels. Using the reflection rubric, students received oral feedback from teachers midway through the course if they needed to improve their reflections by, for example, focusing less on listing activities and more on how those activities made them feel about their work or the work of the societal partner. All students gave written, informed consent to use the data from their reflection logs and surveys for this research. We also received ethical approval from our faculty ethics committee to use the student reflection logs and surveys.

Findings

The baseline survey results clearly reflected the importance of gaining practical experience, especially in the field of global justice. More than half of the students indicated an ICEL-related reason for signing up for the course, noting that they were "keen on [gaining] experience with working with societal partners" or excited to work on real cases rather than hypothetical ones. In response to the baseline survey question of what would make the course successful for them, 14 of the 25 students noted

Table 1. Questions for Global Justice Investigations Lab Baseline Survey

Nr.	Baseline questions (ICEL)	Response type
B1	Why did you choose to apply for this course?	Long answer
B2	Using a max of three bullet points, what is your understanding of the contribution of NGOs to global justice?	3 bullet points
B3	Using a Likert scale of 1–5, and an explanation for your answer, please rate how often have you worked with a societal partner on an educational project?	Likert scale (1–5) Long answer
B4	Using a max of three bullet points, what do you think will be your main challenges in working in a project with a societal partner?	3 bullet points
B5	Using a Likert scale of 1–5, and an explanation for your answer, please rate how often you have been asked in an educational setting to formally reflect on your own work?	Likert scale (1–5) Long answer

Table 2. Questions for Global Justice Investigations Lab Endline Survey

Nr.	Endline questions (ICEL)	Response type	Cross-reference baseline
E1	Using a Likert scale of 1–5, and an explanation for your answer, please rate the likelihood that you will recommend this course to others?	Likert scale (1–5) Long answer	n/a
E2	Using a Likert scale of 1–5, and an explanation for your answer, how has your experience been to work with a societal partner in terms of how valuable it was?	Likert scale (1–5) Long answer	B3
E3	Using a Likert scale of 1–5, and an explanation for your answer, how has your experience been to work with a societal partner in terms of how challenging it was?	Likert scale (1–5) Long answer	B3, B4
E4	What is your understanding of Global Justice after having taken the course?	Long answer	B2
E5	Using a Likert scale of 1–5, and an explanation for your answer, whether your understanding of Global justice has deepened?	Likert scale (1–5) Long answer	B2
E6	Using a Likert scale of 1–5, and an explanation for your answer, whether your interest in Global justice has deepened?	Likert scale (1–5) Long answer	B1, B2
E7	Please rate the extent to which you feel you met the learning objectives of the course. Please provide an explanation for your rating for Learning Objective 4: critically appraise and reflect upon open-source investigations in the global justice field as well as your role therein, and reflect upon your own work, attitudes, and collaborations in the course.	Likert scale (1–5)	n/a

that the course would be successful if they learned practical skills applicable to real-life situations, which would help in a future career. A number of students emphasized the importance of making a real difference beyond traditional classroom assignments. One student emphasized the course would be a success "if I feel like I have made a real contribution to one of the projects," and another student noted their wish to make an "actual contribution to real-life problems." In addition to the expectations around practical skills and wanting to make a real contribution, some students had already considered their positionality and saw the course as an opportunity to make a difference. One student wrote, "I personally feel uncomfortable with the privileged position I was born in and like to use this [lab] for contributing to global justice" work.

Though the large majority of students had not previously worked with societal partners in an educational setting before, they did identify in the baseline survey some concerns as to what would be challenging. For instance, they identified time management issues both on the part of students and the availability of partners as a concern. Almost one third of students (7/25) also identified communication issues as a potential challenge.

In their reflection pieces, it was clear that the students were feeling stressed about working with societal partners on global justice issues. For example, a number of students specifically commented on the stress of working with societal partners and on mixed-level, interdisciplinary teams. One student wrote:

> I felt anxious at the start of the project both because of the responsibility I felt towards the societal partner and because of the uncertainty about my role in the group. I think especially because I'm used to take a step back in group assignments and rely on someone who, in my eyes, has more expertise or knowledge on the topic.

Later, however, this same student wrote, "Not only me personally, but the group has grown a lot during this project." By learning to first work together, the group was able to successfully work with their societal partner and contribute to their project's wider goals.

Learning to deal with uncertainty, insecurity, and stress was a large part of the lab, as was the importance of reflection around these themes. One student noted:

> I have become somewhat confident in the academic context because of its familiarity. Being pushed outside of it, to acquire new skills without being able to rely entirely on my existing academic research skills was new and made me insecure exactly because of its unfamiliarity. And because in the beginning, it was hard to grasp how the lab would unfold, it was challenging for me. However, as noted earlier my curiosity helped, as did the individual lectures and seminars which, despite my being unsure how exactly they related to the later stages of the project, made me reflect on myself again. I very much enjoyed being confronted with myself, my ways of perceiving and framing experiences and information, and our own role in the greater scheme of open-source investigation.

Similarly, other students also emphasized the initial stress of working on real-world issues. One student commented, "Although it may have been stressful and there were times that I wondered whether I was good enough, I have come out of it with better skills and knowledge that my diligence pays off." This same student was pleased that his work contributed to a larger project of the partner organization and that his work may also get published on their website.

Although the vast majority of the students (23 of 25 students) found the work with societal partners at least moderately valuable, they did, at times, struggle with their collaborations with societal partners, on average scoring the value of working with the partner a 3.681 on a 5-point scale (population average). Usually, these struggles were due to issues around mismatched expectations and communication—two points of concern identified by students prior to the course starting. One societal partner in particular, a well-known NGO in the global justice field, had poor communication with students in the final month of the lab, which is a crucial period for the students and their projects. Despite repeated attempts by the supervisors to get in touch with the partner, all communications stopped. One student reflected:

> For me personally, not receiving any response anymore took away something from the project which I had been really enjoying, namely our engagement being embedded into a greater project and being connected with other students. Not receiving any further response felt a bit devaluating of our engagement, made me feel quite disconnected, as if we had not really been part of it in the first place.

Another student working with a different societal partner also commented on the challenges she experienced in relation to communication and expectations. She wrote, "The lab work with our societal partner proved to be rather challenging. At times, it felt as though their expectations were high, however they simultaneously did not communicate their needs clearly."

In an assessment of the endline results, it became clear that students had indeed been adept in the baseline survey at anticipating future challenges with societal partners. Ultimately, many students felt that it was challenging to work with their societal partner, with 18 students scoring working with a partner as at least "moderately" challenging (population average: 3.476 on a 5-point scale). The most frequently cited challenges of working with societal partners in the endline survey related to communication and coordination issues. It can be seen in the results that one of the four societal partners stopped communicating with students and supervisors halfway through the project.

The results showed that this lack of communication with one of the partners resulted in feelings of disconnect and demotivation toward the project, making the project feel more challenging to students. One student said, "The contact wasn't good; in the end we were practically ignored. I didn't really feel like there was much of a relationship between us and the societal partner," and another student said, "The lack of communication and the feeling of disconnect did

make the project rather challenging." The importance of reciprocity here is paramount. It demonstrates that although students are highly willing to produce something of value with their societal partner, the motivation to do so has to be maintained and stimulated by communication and feedback. One student wrote, "Except for in the beginning, we did not receive any feedback or even got a reply from our partner, so it posed some issues with respect to our motivation and our engagement."

Significantly fewer students cited expectation management as a challenging aspect of working with the partners at the end of the course than had anticipated this difficulty in the baseline survey. Although 11 students noted their concerns in this aspect in the baseline survey, only three students in the endline survey cited expectation management as a challenge. One of these students said that it was "very challenging and intimidating to work with professionals and to deal with their workflow and expectations." Two other students noted that their concerns were alleviated over time. One of them said, "I was afraid not to get to the expectations of the [project] team. In the end, they were more than satisfied with their work."

The endline responses furthermore demonstrated that students were highly motivated by the real-life impact of their work and found the practical implications of the work a valuable aspect of the collaboration with societal partners. One student wrote, "I think we actually made a contribution by working on the Amnesty project. It felt really useful to discover and verify these cases that Amnesty might use in their reports." Another student said that "the project was very interesting and something that really matters and the experience of working on it made me better understand the issue." Such answers demonstrate that students have high motivation to contribute something of importance to societal partners and to feel useful. However, not all students felt they had the tools or the opportunity to do so. For example, one student said, "The communication and also how important our contribution felt (oftentimes very little) made the whole experience only moderately valuable." Another student said, "I wish our partner would be more responsive and more interested in our further development and involvement with other project." Overall, student experiences with the project and the learning itself can be seen as contingent on the communication and coordination of the partner, with the best student experiences resulting from situations in which students felt guided and valued.

Students demonstrated that the hands-on learning projects contributed to a moderately deeper understanding and new perspectives on the substantive theme of global justice. On a Likert scale of 1–5, with 1 being *not at all deepened* and 5 being *extremely deepened*, most students scored a 3 (Mode 3, population mean also 3.000) at *moderately deepened* when asked if the course had deepened their understanding of global justice. Fifteen students gave this question a 3 or above. One student said that the projects helped them "see injustices I didn't before," and another stated that their interest in global justice had deepened, but "not from an idealistic perspective, but from a more practical one on how to achieve global justice." Eight students stated that the projects made them more interested and motivated in pursuing a future in the global justice sphere. Importantly, the hands-on learning gave students an idea of "what was possible in the field." One student said, "I feel like OSINT [open-source intelligence] has immense potential to aid in global justice pursuits. I have much stronger interest in investigative research altogether now." It was a significant motivating factor for students that the skills they learned could be practically applied immediately after the course. One student said, "I was sceptic [sic] of international law and global justice issues before taking the course, but I found again the motivation to research in this field and discovered new ways and approaches to tackle the current challenges." The practical skill set gave students a grasp of what they could pragmatically do to address global justice issues, allaying the skepticism and helplessness students often feel in relation to global justice. One student said, "Our efforts can be of use, even if it's not obvious initially." Another said, "Now that I have been handed a new way of contributing to global justice, I feel like I can already start now, instead of waiting for later in my career."

The lab also contributed to a higher awareness in students about their positionality within the field of global justice, as well as a greater awareness of the role of open-source investigations and investigators in the field. One student commented, "I caught myself with some biases I didn't even know

existed," and another said, "The course has very effectively provided us with information about how to recognize our own positionality and why that matters so much." Seven students cited the reflection logs as the key exercise that contributed to greater awareness in the field. One student wrote:

> While I think I still have a lot to learn in this, I now know what good open-source research should be and how researchers should take their own biases, limits and responsibilities into account. While I will continue to develop my own reflective skills, I think I have become more aware of how I function within groups, as an open source investigator and a global citizen.

Another said,

> I feel within my work in the entire course I was able to reflect on my role in this and was thus consciously aware of the impact we would be having and thus I tried to work as actively as possible to maintain and improve my knowledge and understanding of everything whilst also being present and understanding towards my team and our project.

The endline survey results, as well as the reflection logs, demonstrate that despite the challenges, the students were highly positive about working with the societal partners, explaining that working with the partners gave them a better idea of what NGOs do to further global justice, and also helped them "put a face and name" to global issues. Indeed, despite the important concerns and the challenges encountered in their work with societal partners, a vast majority of students valued this interaction and viewed it as an important part of the course. One student commented:

> Overall, the lab has given me the privilege to learn about OSI [open-source investigations], OS [open-source] tools, partner collaboration, and teamwork but, most importantly, has given the opportunity to know myself better, to push my boundaries and get out of my (legal) comfort zone, to reaffirm my values and to fight my own biases. This was a lifetime experience.

And another wrote:

> I learned a lot throughout the lab—personally, academically and professionally. I am very grateful for the opportunity to participate in it. Not only the personal lessons and experiences but more generally, the ability to learn about OSI, become convinced by its relevance and conceive of this whole new field for (professional) work has been very rewarding. I enjoyed the uncertainty (in hindsight :)) and the challenges that arose, exposing me to an unfamiliar field and also to myself.

Based on the results from the first iteration of our Global Justice Investigations Lab, we can conclude that students learned new skills and insights when contributing to global justice projects by working together with societal partners. In follow-up discussions with societal partners, three of the four partner organizations indicated that the students made valuable contributions to their work, helping them to achieve wider organizational goals (one follow-up discussion has yet to take place due to an inability to reach the partner). The willingness of three of the four societal partners to work with the lab again indicates their overall satisfaction. This reception indicates that one of the lab's aims, fostering a mutually beneficial relationship, was successful in these instances.

Discussion

Overall, the baseline survey revealed that students were primarily drawn to the course for its practical experience in global justice, with many eager to work with societal partners on real-life issues rather than hypothetical cases. Key to their course success was acquiring practical skills applicable to their future careers, and the opportunity to make tangible contributions. Challenges identified in the baseline surveys included time management and communication with societal partners. Despite initial stress and anxiety about roles and responsibilities, reflection logs showed that students grew more confident and capable as the project progressed, valuing the practical experience and its real-world impact.

The reflection logs by students demonstrated that the lab also assisted students' transformation in terms of the key concepts of reflexivity and positionality. As noted above,

reflexivity requires someone to consider their place on axes such as wealth, gender, and economic factors such as class (Grusky, 2000) and to do so in relation to others. It is closely connected to positionality, which requires looking at one's position in the world and dissecting the facets of identity that intersect to shape one's power and privileges in it. The findings show that demonstrating reflexivity and awareness of positionality were key drivers of student learning. Reflexivity is evident in how students reflected on their learning and interactions with societal partners, recognizing their own biases, insecurities, and the impact of their work. One student noted the discomfort with their privileged position and the desire to contribute to global justice, showing an awareness of their own social standing and its implications. Through reflection logs, students gained deeper insights into their perceptions and the influence of their positionality on their work, illustrating the importance of self-awareness in achieving meaningful engagement and learning outcomes. Within the learning environment of the lab, with its global focus and aims to give students new perspectives on their positionality in the context of global problems, both concepts played a central role. From the first day of the lab, students were encouraged (and supported) to critically reflect on their positionality within the context of the course. Fostering student awareness of their own positionality was fundamental in building collaborative relationships within their interdisciplinary teams and in learning to value the perspectives of both team members and societal partners, as well as contributing to the long-term social justice aims of the lab.

Students also became more aware about concepts such as intersectionality, privilege, and reciprocity. Reciprocity was the guiding principle of the lab, underpinning the relationship between not only the students but also the program as a long-term project with the societal partners (Hammersley, 2012; Latta et al., 2018; Sharpe & Dear, 2013). As the findings above indicate, reciprocity was key in motivating students. Students were highly willing to contribute to projects and to meaningfully contribute to social justice ends. The endline survey indicates, however, that to do so, students need clear mandates and guidance. Consequently, reciprocity is central to the success of the course, emphasizing the importance of mutual benefit and effective communication between students and societal partners. Students' motivation and engagement were closely tied to the responsiveness and feedback from their partners. Issues with communication and coordination, such as the lack of response from one societal partner, led to feelings of disconnection and demotivation among students. Effective reciprocity, involving clear communication and valuing students' contributions, was vital for maintaining motivation and ensuring the students felt their work was meaningful and impactful. This reciprocal relationship underscored the importance of collaboration in achieving the course's educational and practical goals.

However, reciprocity requires communication and coordination between the teachers, students, and partner organizations. As Dumlao (2018) highlighted, ideal partnerships in community engagement—those that are reciprocal and mutually beneficial—are "brought to life" by (interpersonal) communication (p. 36). The unique digital focus of the lab meant students communicated with partner organizations primarily by digital means (email, shared documents, and video calling). When this digital communication breaks down, as it did with one of the groups, stress, frustration, and disillusionment follow. Although a digital OSI lab provides benefits in terms of reciprocity by avoiding exploitative dynamics between the university and (vulnerable) communities, using digital communication also places much of the learning in the hands of partner organizations, which facilitate action and thus act as brokers between the students and the community. Clear communication with partners regarding expectations, tasks, and feedback on work was key in fostering reciprocity and, therefore, furthering student learning goals. Lack of physical immersion and reliance on digital communication methods, while beneficial, may thus also present unique challenges. Conclusions about the benefits and drawbacks of in-person as opposed to virtual community-engaged learning are mixed (O'Sullivan & Smaller, 2023; Sweet et al., 2023). But when digital communication goes well, as it did in most of the project groups, it is valuable to the learning of all involved, especially the students.

Overall, the course highlighted the intertwined nature of reflexivity, positionality, and reciprocity in experiential learning. Students' reflections on their experiences, awareness of their social positions, and the

reciprocal dynamics with societal partners contributed to a deepened understanding of global justice issues and their roles within this field. This approach not only enhanced their practical skills but also fostered a deeper appreciation of the complexities and challenges of working toward global justice goals.

Having discovered how ICEL has benefited students in the areas of reflexivity, positionality, and reciprocity, our research also points to the limits of what ICEL can achieve. For example, it is also clear from the findings that engaging critically with real-world global problems for a few months will often not result in a measurable change in the problems being addressed, which may be discouraging for students. In accepting that systemic social change may never be achieved in an ICEL program, it is important to recognize that the attempt to approach ICEL critically is valuable in its own right (Sharpe & Dear, 2013). Encountering global issues up close can challenge student comfort levels, so the intensity of these experiences provides a space for personal growth (Sharma et al., 2021). Reflecting critically on global issues and, in the context of an OSI lab, being exposed to unfiltered images, videos, and stories of injustice, can be difficult for students (Jones, 2002; Larsen & Searle, 2017), but these "discomforts" are the site where learning transformation occurs (Sharpe & Dear, 2013).

Discomforts were felt by many students as they navigated the new landscape not only of working with a societal partner but also of learning new OSI skills. As students apply their skills in OSI in a socially aware context, it is pertinent to recall that gaining such skills is possible due to a privileged position of learning within a Dutch academic landscape, access to excellent internet connections, and teachers with digital literacy. Although open-source investigating is often framed as revolutionary in democratizing research possibilities because it relies on open-access data, the extent of this democratization should not be overestimated on a global level. The sword that OSI wields against information opacity, overcoming hurdles that previously restricted such analysis to governmental (intelligence) agencies and well-funded investigators, is nonetheless a tool accessible only to those with the requisite digital skills and literacy. The perception that few resources and skills are required to engage in OSI rests on how one is positioned in accessing and, perhaps more importantly, understanding information and communications technologies that are often dependent on national infrastructures.

Having unveiled the benefits of the lab's approach to ICEL for student development, we plan to continue to emphasize the importance of reflexivity and positionality from the start of the course. We will also make adjustments for the future expansion of the project and utilize the limitations discovered as the basis for further research. First, we will build in greater feedback opportunities within students' reflection work, in order to stress the importance of practicing reflection. We will thereby give students more guidance in the reflection exercises and help steer them toward a better understanding of their own positionality in the process.

Second, we will give extra attention to reciprocity and the importance of partner communication and engagement. Despite best efforts to maintain good communication with partners, sometimes relationships break down, as occurred in the lab studied here. The negative impact of this withdrawal on students was clear. Fostering meaningful engagement, especially when dealing with a partner that is located far away geographically, is crucial for the success of the lab and the learning of students. This need for contact also connects with observations by Bowe et al. (2023), who found that partner communication was key in shaping students' "senses of relatedness and autonomy" in relation to service-learning projects (p. 2837). Our observations may also connect to future research on the relationship of (nondigital) factors that impact communication effectiveness, such as language barriers (Bash, 2009), accents, and cultural differences (Dumlao, 2018, pp. 99–115), and thereby impact reciprocity in ICEL partnerships.

For future iterations of the lab, we will engage in more up-front dialogues with our societal partners and raise our concerns about communication and coordination.

Conclusion

In conclusion, the Global Justice Investigations Lab demonstrated significant learning outcomes through the integration of reflexivity and positionality, as well as reciprocity, into its structure and curriculum. Students gained valuable skills and in-

sights by working with societal partners and contributing meaningfully to global justice projects. The positive feedback from most societal partners and their willingness to collaborate again underscores the program's effectiveness and the fostering of mutually beneficial relationships. Reflexivity and positionality were central to the students' learning, fostering a deeper understanding of their social positions and biases, which in turn influenced their collaborative efforts and engagement with real-world issues. Furthermore, the principle of reciprocity played a crucial role in motivating students and ensuring meaningful engagement with their partners' work. Students were shown to be highly motivated to collaborate with fellow students and partners and to have practical impact. The challenges faced, including communication breakdowns, highlighted the importance of effective coordination and expectation-setting in experiential learning. Despite the difficulty of achieving systemic social change within a short time frame, the course's critical approach provided valuable personal growth opportunities for students, enhancing their appreciation of the complexities in global justice efforts. Overall, the lab underscored the importance of critical engagement, self-awareness, and collaborative dynamics in addressing global justice issues, while also recognizing the privileged context within which this learning occurs. Overall, the course was seen as a transformative experience that provided practical skills, deeper insights into global justice, and personal growth.

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