



## Digital Evidence in Refugee Status Determination

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**DIGITAL EVIDENCE IN REFUGEE STATUS  
DETERMINATION**

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Digital evidence is now rapidly emerging in refugee status determination ('RSD') – the procedure for determining whether a person meets the criteria for protection as a 'refugee' under the 1951 *Refugee Convention*. Its growing popularity among migration authorities may be seen as a response to the relative dearth of "hard" evidence in refugee status determination (RSD) and the repeated critiques of human decision-making in asylum as prone to arbitrariness, subjectivity and bias.<sup>1</sup> RSD transpires under particularly difficult conditions of epistemic uncertainty, where the applicant's testimony is central, and the risks of misjudgment are profound for both for the applicant who may be sent to harm and the state whom may thereby in violation of international law. However, the efficiency of decision making is not the only way of thinking about the problem. Reimagining evidence practices through digital means may not only help refugees to support their claims but also counter existing epistemic asymmetries whereby the state has also the resources and the refugee has none in RSD.

The issue of evidence is especially problematic for RSD as traditional means for assessing credibility face difficulties. The relative lack of tangible evidence can make authorities overly reliant on problematic circumstantial evidence, or worse, lead them to unduly formalize elements of the applicant's testimony by trying to make it fit into categories that have little relation to the applicant's harm.<sup>2</sup> Decades of research have shown that RSD procedures are innately inter-subjective,<sup>3</sup> prone to forms of explicit and implicit bias,<sup>4</sup> and susceptible to cultural misrecognition,<sup>5</sup> gendering dynamics<sup>6</sup> and considerable power imbalances between applicants and decision makers.<sup>7</sup>

It has rightly been noted that digitization in principle could help develop a more "informed RSD process."<sup>8</sup> However, digitization has tended to enter legal frameworks with a kind of "techno-solutionism," or the idea that technological measures will somehow cure the fallibilities of human-decision making.<sup>9</sup> In this essay, we firstly critically examine the growing use of digital evidence in RSD by authorities and the human rights concerns raised by some of these practices. We then move to outline some concrete examples of how digital evidence might also present new opportunities for immigration lawyers and legal clinics, in helping to substantiate asylum claims and documenting underlying inequities and systematic biases in existing RSD practices. In the process, we will seek to navigate a difficult balance between the techno-solutionism that hails digitization as a panacea and the "techno-hype" of kneejerk

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<sup>1</sup> JAYA RAMJI-NOGALES, ANDREW I. SCHOENHOLTZ, & PHILIP G. SCHRAG, REFUGEE ROULETTE: DISPARITIES IN ASYLUM ADJUDICATION AND PROPOSALS FOR REFORM (2011); Sean Rehaag, *Judicial Review of Refugee Determinations: The Luck of the Draw*, 38 QUEENS L.J. 1 (2012); William Hamilton Byrne et al, *Data-Driven Futures of International Refugee Law* J. REFUGEE STUD. 1 (2023).

<sup>2</sup> Rebecca Dowd et al, *Filling gaps and verifying facts: Assumptions and credibility assessment in the Australian Refugee Review Tribunal*, 30 INT'L J. REFUGEE L. 71 (2018).

<sup>3</sup> GREGOR NOLL (ED.), PROOF, EVIDENTIARY ASSESSMENT AND CREDIBILITY IN ASYLUM PROCEDURES (2005)

<sup>4</sup> Fatma E. Marouf, *Implicit Bias and Immigration Courts*, 45 NEW ENG. L. REV. 417 (2010).

<sup>5</sup> Edith Montgomery & Anders Foldspang, *Predictors of the Authorities' Decision to Grant Asylum in Denmark*, 18(4) J. REFUGEE STUD. 454 (2005).

<sup>6</sup> Jenni Millbank, *Gender, Sex and Visibility in Refugee Claims on the Basis of Sexual Orientation*, 18 GEORGETOWN IMM. L.J. 71 (2003).

<sup>7</sup> Jennifer Beard & Gregor Noll, *Parrhēsia and Credibility: the Sovereign of Refugee Status Determination*, 18(4) SOC. & L. STUD. 455 (2009).

<sup>8</sup> Rosemary Byrne, *The Protection Paradox: Why Hasn't the Arrival of New Media Transformed Refugee Status Determination?*, 27(4) INT'L J. REFUGEE L. 625 (2015).

<sup>9</sup> PETRA MOLNAR, THE WALLS HAVE EYES: SURVIVING MIGRATION IN THE AGE OF ARTIFICIAL INTELLIGENCE (forthcoming, 2024)

reactions to digitization as inherently bad.<sup>10</sup> We thus conclude by reflecting on the need to approach digital evidence in RSD as a reflexive *praxis* that is targeted towards tackling arbitrary exercises of power with the best available methodologies.

### *Digital Evidence as a Panacea for RSD?*

Digital evidence, defined as “information stored or transmitted in binary form that may be relied on in court,”<sup>11</sup> is generally conceived as data that could be derived from devices such as computers, mobile telephones, or open-source information on the internet. In accordance with standard rules of evidence, this evidence will be treated as *legal* evidence if it is “reliable” and having “sufficient probative value” to be used by a court.<sup>12</sup>

Yet, RSD decision making represents unique case study for the use of digital evidence. Firstly, because the process typically incorporates elements of both inquisitorial and adversarial models of legal decision-making and, it does not assume that there will necessarily be a fair balance between the parties. Secondly, approaches to evidence in RSD are fragmented because the issue is largely governed by national law, with few binding rules at the international level.<sup>13</sup> Thirdly, evidence practices are subject to higher indeterminacy than most other areas of law.<sup>14</sup> Calling upon forensic evidence or witnesses for refugees or migrants that flee alone is rarely possible. Other evidentiary procedures, such radiological age determination, language tests and torture assessments may be relevant in some cases but are also characterized by scientific uncertainty and possible bias.<sup>15</sup>

As a result of the above, there is now a widespread scholarly consensus that refugee law suffers from a “fact-finding crisis”<sup>16</sup> because refugees face problems producing evidence for procedures that are likely highly unfamiliar. As Luker notes:<sup>17</sup>

[There is] reliance upon oral testimony that can rarely be corroborated; a cross-cultural context in which nearly all hearings are facilitated by an interpreter; the likelihood that applicants will have difficulty in speaking about experiences of trauma, persecution and

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<sup>10</sup> Martina Tazzioli, *Counter-mapping the Techno-hype in Migration Research*, MOBILITIES 1 (2023)

<sup>11</sup> Martin Novak, Jonathan Grier and Daniel Gonzales, *New Approaches to Digital Evidence Acquisition and Analysis*, 280 NAT’L INST. JUST. J. 1 (2019).

<sup>12</sup> This literature is currently burgeoning in international criminal law, see e.g. María de Arcos Tejerizo, *Digital Evidence and Fair Trial Rights at the International Criminal Court*, 36(3) LEIDEN J. INT’L L. 749 (2023).

<sup>13</sup> See generally UNHCR, [Fair and Efficient Asylum Procedures: a Non-Exhaustive Overview of Applicable Standards](#), 2 September 2005.

<sup>14</sup> Note 4 and accompanying text.

<sup>15</sup> Gregor Noll, *Junk science? Four Arguments against the Radiological Age Assessment of Unaccompanied Minors Seeking Asylum*, 28(2) INT’L J. REFUGEE L. 234 (2016); Diana Eades, *Testing the Claims of Asylum Seekers: The Role of Language Analysis*, 6(1) LANGUAGE ASSESSMENT Q., 30 (2009); Kenneth S. Pope, *Psychological Assessment of Torture Survivors: Essential Steps, Avoidable Errors, and Helpful Resources*, 35(5-6) INT’L J. L. & PSYCHIATRY 418 (2012).

<sup>16</sup> HILARY EVANS CAMERON, *REFUGEE LAW’S FACT-FINDING CRISIS TRUTH, RISK, AND THE WRONG MISTAKE* (2018).

<sup>17</sup> Trish Luker, *Decision Making Conditioned by Radical Uncertainty: Credibility Assessment at the Australian Refugee Review Tribunal*, 25(3) INT’L J. REFUGEE L. 502, 533 (2013).

violence; and the likelihood that there is a lengthy period between when relevant events occurred and the hearing of the claim.

Digital evidence is thus emerging in RSD and immigration procedures as an exciting prospect for decision makers and courts hoping to parse some of these problems and expand evidential basis upon which decisions are taken. For example, the ‘iBorderCtrl’ project, trialed in the European Union, combines biometric verification, social media analysis and risk assessment software, and features AI-based behavioral analysis to predict whether applicants are potentially lying when interviewed by a computer-animated border guard avatar.<sup>18</sup> The Netherlands, Belgium and France have used verification technologies that classify certain features in documents as indications of potential fraud.<sup>19</sup> Both Germany and Turkey used dialectic recognition software in testimonial procedures during the 2015-2016 refugee crisis to test whether refugees had in fact come from Syria.<sup>20</sup>

Perhaps the most widespread use of digital evidence in RSD is now mobile phone data analysis. Germany, Denmark, Netherlands, Estonia, Croatia, Germany, Lithuania, and Norway have all adopted practices of confiscating refugee’s phones in the last five years. The German legislation even requires that applicants who do not possess recognized identity documents must provide their mobile phone for analysis, otherwise their asylum application will not be processed. Authorities may extract data on country codes of contacts and messages, login details for social media platforms, and geo-data linked to applications, in order to assess the applicant’s identity and travel path, but in some cases also core elements of the asylum claim, such as an applicant’s religion or whether the applicant has been involved in crimes that may preclude asylum.<sup>21</sup> Whilst some states have proven reluctant to use digital evidence in RSD in light of its inherent risks to applicants’ privacy, the EU more generally envisions sharing of biometric and other types of digital personal information as part of its interoperability strategy.<sup>22</sup>

Scholars have rightly warned that such practices raise significant human rights concerns, not least due to their potential to impinge rights of privacy. German courts have recently ruled that the state practice of mobile phone data analysis unlawful because it did not meet requirements of necessity.<sup>23</sup> In 2021, the General Court of the European Union initially ruled that core documents related to the technical development of the iBorderCtrl project should be made openly available by the Commission, but earlier this year the European Court of Justice reversed the decision.<sup>24</sup> Apart from the immediate human rights concerns, however, stands the more worrying tendency that such practices constitute a shift in thinking for the forms of

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<sup>18</sup> Javier Sánchez-Monedero & Lina Dencik, *The Politics of Deceptive Borders: ‘Biomarkers of Deceit’ and the Case of iBorderCtrl*, 25(3) INF., COMM. & SOC. 413 (2022).

<sup>19</sup> DERYA OZKUL, *AUTOMATING IMMIGRATION AND ASYLUM: THE USES OF NEW TECHNOLOGIES IN MIGRATION AND ASYLUM GOVERNANCE IN EUROPE* 25 (2023).

<sup>20</sup> *Id.*, 43.

<sup>21</sup> Trine Rask Nielsen, Thomas Gammeltoft-Hansen and Naja Holten Møller, *Mobile Phone Data Transforming Casework in Asylum Decision-making*, ACM 2023 (forthcoming, 2024).

<sup>22</sup> See in particular Nicholas R. Micinski & Will Jones, *Digitization without Digital Evidence: Technology and Sweden’s Asylum System*, 35 J. REF. STUD. 1011 (2022).

<sup>23</sup> See Francesca Palmiotto and Derya Ozkul, [‘Like Handing My Whole Life Over’ The German Federal Administrative Court’s Landmark Ruling on Mobile Phone Data Extraction in Asylum Procedures](#), VERFASSUNGSBLOG, (2023).

<sup>24</sup> *Patrick Breyer v ERA*, Case T-158/19, General Court of Justice of the European Union, 15 December 2021; *Patrick Breyer v ERA*, Case C-135/22 P, Court of Justice of the European Union, 7 September 2023.

evidence that are relevant to towards a more opaque system that privileges outward signs of contradiction over the validity of the applicant's story.

### *Digital Evidence to Address Epistemic Injustice in RSD*

Yet, there are other ways of thinking about digital evidence, more targeted towards addressing the epistemic problems arising in existing RSD practices. After all, the twentieth century empiricists conceived of evidence as “sense data,” whilst more recent accounts stress that one's evidence is “the totality of propositions that one knows.”<sup>25</sup>

Scholars, litigators, and NGOs are also now advocating for data-driven approaches as means to support migrant and refugee claims. The first trajectory arises in new uses of big data and open-source information. For instance, researchers in Australia have used satellite imagery to evidence unsafe conditions for Rohingya refugees scheduled to return to Myanmar.<sup>26</sup> The NGOs Forensic Architecture and Forensic Oceanography have similarly employed data mining, geolocation, pattern analysis and remote sensing to document incidents in refugee camps or pushbacks of migrant boats.<sup>27</sup> These types of evidence, which can be used to document different aspects of both RSD and other types of migration claims, are now increasingly being used in litigation at both the national and international levels.<sup>28</sup> They further offer significant new opportunities for developing a legal case in support of an applicant through both evidence sharing between civil society actors and extrapolation of evidence across multiple data sources, such as geodata, satellite imagery, ship positioning data, and qualitative testimony.<sup>29</sup>

A second prospect arises in the use of computational legal methods in RSD analysis. A growing body of scholarship has analyzed large datasets of national case law to document patterns of inconsistency and bias in asylum decision-making.<sup>30</sup> A key finding from this research has been to document individual decision maker bias, with some judges having a recognition rate of close to zero across dozens, or even hundreds, of cases. Other findings suggest that decision makers may be biased vis-à-vis particular types of applicants, or unduly influenced by political factors, how preceding cases were decided, or the availability of legal representation, among other factors. Such analysis can be important evidence not only in concrete cases, but also when advocating for general reforms of asylum procedures. Researchers in Australia and Canada

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<sup>25</sup> For an introduction to evidence as a concept of philosophy see Thomas Kelly, *Evidence* in Edward N. Zalta (ed.) THE STANFORD ENCYCLOPEDIA OF PHILOSOPHY (Winter 2016 Edition).

<sup>26</sup> Thomas, Elise, Nathan Ruser & Mali Walker, *Mapping Conditions in Rakhine State*, Australian Strategic Policy Institute, , July 24, 2019

<sup>27</sup> For further information see <https://forensic-architecture.org/category/migration>

<sup>28</sup> For examples see Cathryn Costello and Itamar Mann, *Border Justice: Migration and Accountability for Human Rights Violations*, 21(3) GERMAN L.J. 311 (2020)

<sup>29</sup> See e.g. Charles Heller and Lorenzo Pezzani, *Mare Clausum: Italy and the EU's Undeclared Operation to Stem Migration across the Mediterranean*, FORENSIC OCEANOGRAPHY, May 2018.

<sup>30</sup> JAYA RAMJI-NOGALES, ANDREW I. SCHOENHOLTZ, & PHILIP G. SCHRAG, REFUGEE ROULETTE: DISPARITIES IN ASYLUM ADJUDICATION AND PROPOSALS FOR REFORM (2011); Sean Rehaag, *Judicial Review of Refugee Determinations: The Luck of the Draw*, 38 QUEENS L.J. 1 (2012); Daniel Chen & Jess Eigel, *Can Machine Learning Help Predict the Outcome of Asylum adjudications*, PROCEEDINGS OF THE 16TH EDITION OF THE INTERNATIONAL CONFERENCE ON ARTIFICIAL INTELLIGENCE AND LAW (2017); William Hamilton Byrne et al, *Data-Driven Futures of International Refugee Law* J. REFUGEE STUD. 1 (2023).

have thus publicized data to encourage judges and courts to audit their decision making to address cognitive and social biases.<sup>31</sup> Other scholars have advocated for using forms of AI to crowd-source problems of evidence in refugee decision making amongst judges<sup>32</sup> or to resolve epistemic doubt in favor of the applicant.<sup>33</sup>

The above examples point to ways that digitization may equally reconstitute our understandings of what types of evidence are relevant for RSD as a complex process where human decision making is also itself prone to significant bias and information gaps. In this context, digital evidence can also support fact finding without lapsing into ‘techno-hype’ or falling prey to blanket critiques of technology.<sup>34</sup> Digitization of evidence, like all applications of technology, will always bring benefits and downfalls. However, attention to the real aspects of the problem—decision making conditioned by asymmetric information—may help us to avoid quick fix solutionism that only accentuates existing problems of epistemic injustice.

### *Conclusion*

At a time when the politics of recognition are central to public discourse,<sup>35</sup> a certain “institutionalized disbelief” against migrants and refugees based on incomplete evidence is unfortunately far too common.<sup>36</sup> RSD is permeated by “testimonial injustice” because refugees experience a lack of affordance of credibility that arises from the presence of systematic biases in asylum decision making. But refugees also suffer “hermeneutical injustice” that is no fault of any one person but rather arises because their subjective fear can never be fully understood by an external decision maker.<sup>37</sup> RSD, in other words, is intrinsically prejudiced against refugees—firstly, because the state has all the resources, and secondly, because there are inherent limitations on what the system provides to facilitate applicants’ evidential recollection of past sense data.<sup>38</sup>

It is easy to see in this context why digital evidence presents to us both solutionism and hype. But it is worth recalling that a central tendency of the datafication of society has been increasing epistemic inequality between powerful and vulnerable actors.<sup>39</sup> So far, digitization of RSD is showing signs of continuing this pattern. Perhaps the best way forward is for small-scale interventions which try to level the playing field. In the words of Fleur Johns, a turn to data-

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<sup>31</sup> Daniel Ghezelbash, Keyvan Dorostkar, Shannon Walsh, *A Data Driven Approach to Evaluating and Improving Judicial Decision-Making: Statistical Analysis of the Judicial Review of Refugee Cases*, 45 *UNI. NEW S. WALES L.J.* 1085 (2022); Rehaag, *supra* note 30.

<sup>32</sup> Hannah Laqueur and Ryan Copus, [Synthetic Crowdsourcing: A Machine-Learning Approach to Inconsistency in Adjudication](#) (December 6, 2017).

<sup>33</sup> Hilary Evans Cameron, Avi Goldfarb and Leah Morris, *Artificial Intelligence for a Reduction of False Denials in Refugee Claims*, 35 *J. REFUGEE STUDIES* 493 (2021).

<sup>34</sup> Note 11 and accompanying text.

<sup>35</sup> AXEL HONNETH, *THE STRUGGLE FOR RECOGNITION: THE MORAL GRAMMAR OF SOCIAL CONFLICTS* (1996)

<sup>36</sup> Lisa Marie Borrelli, Annika Lindberg, Anna Wyss, *States of Suspicion: How Institutionalised Disbelief Shapes Migration Control Regimes*, 27(4) *GEOPOLITICS* 1025 (2022).

<sup>37</sup> See generally MIRANDA FRICKER, *EPISTEMIC INJUSTICE: POWER AND THE ETHICS OF KNOWING* (2007)

<sup>38</sup> Similarly, Hilary Evans Cameron, *Refugee Status Determination and the Limits of Memory*, 22 *INTERNATIONAL JOURNAL OF REFUGEE LAW* 469 (2010).

<sup>39</sup> Shoshana Zuboff, *Caveat Usor: Surveillance Capitalism as Epistemic Inequality*, in *AFTER THE DIGITAL TORNADO: NETWORKS, ALGORITHMS AND HUMANITY* 174 (Kevin Werbach ed., 2020)



driven evidence practices amongst scholars, NGOs and litigators may serve to “probe inside some operations of power in action, rather than try to arrest or arraign those operations from afar”; it is about “infiltrating and overloading some systems going forward, rather than trying so insistently to dial them back towards some ... supposedly neglected opportunity.”<sup>40</sup> In this vein, this contribution makes the case for approaching digital evidence as a reflexive research practice; one that takes existing epistemic asymmetries in RSD as a starting point and thinks through concrete ways through which digitization may help empower asylum seekers in the legal process.

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<sup>40</sup> Fleur Johns, *On Dead Circuits and Non-Events in* CONTINGENCY IN INTERNATIONAL LAW: ON THE POSSIBILITY OF DIFFERENT LEGAL HISTORIES, 25, 41, 43 (Ingo Venzke and Kevin Jon Heller, eds. 2021)

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