

# Report on Artificial Intelligence and the Administration of Justice in the United Kingdom

## Predictive Justice

By Elizabeth Tiarks<sup>1</sup>

### Introduction

This report considers predictive justice in England and Wales, with a focus on predictive risk algorithms used in sentencing. The main incentives for using predictive risk algorithms and AI-based systems in the criminal justice system are cost and efficiency. This is especially the case due to significant time and economic pressures on the criminal justice system which have been exacerbated by the pandemic.<sup>2</sup> More justice-focused incentives include reducing bias and arbitrariness in judicial decision-making and increasing consistency and transparency.<sup>3</sup> The use of algorithms in sentencing are thought to increase consistency by standardising the measurement of risk,<sup>4</sup> and reduce costs and increase efficiency by improving the targeting of resources, matching offenders with suitable interventions.<sup>5</sup>

### The Offender Assessment System (OASys)

OASys is a tool used in England and Wales to make assessments of risk of harm and reoffending, and inform decision-making about both sentencing and parole. The Offender Group Reconviction Scale (OGRS) is a key algorithmic component of OASys assessments and is also used independently in some circumstances, such as short delivery pre-sentence reports. OASys and OGRS are managed by the Ministry of Justice, with the current automated version of OASys in operation since 2013.<sup>6</sup> The algorithmic components do not currently use machine learning, but there is some indication that introduction of machine learning methods is under consideration.<sup>7</sup> The willingness to use machine learning in risk assessments used for predictive policing, e.g. Durham Constabulary's Harm Assessment Risk Tool (HART),<sup>8</sup> suggests that this may be the direction of travel. Machine

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<sup>2</sup> Ministry of Justice criminal court statistics (n 10).

<sup>3</sup> See for example the 'opportunities' of AI identified in the Centre for Data Ethics and Innovation AI barometer: Centre for Data Ethics and Innovation, 'CDEI AI Barometer' (June 2020) <<https://www.gov.uk/government/publications/cdei-ai-barometer/cdei-ai-barometer#criminal-justice>> accessed 13 February 2022.

<sup>4</sup> The ability of risk prediction algorithms to increase consistency in sentencing has been questioned. See Elizabeth Tiarks, 'The impact of algorithms on legitimacy in sentencing' (2021) 2(1) *Journal of Law, Technology and Trust*.

<sup>5</sup> The objectives actually pursued seem to place more emphasis on cost and efficiency than more justice-focused incentives such as reductions in bias. This can be seen from the increasing emphasis on speed of production of PSRs and the move away from full OASys assessments, as discussed later in this paper.

<sup>6</sup> Robin Moore (ed) 'A compendium of research and analysis on the Offender Assessment System (OASys) 2009–2013' (Ministry of Justice 2015).

<sup>7</sup> The Law Society, *Algorithms in the Criminal Justice System* (The Law Society 2019), p.51.

<sup>8</sup> Marion Oswald, Jamie Grace, Sheena Urwin and Geoffrey C. Barnes, 'Algorithmic risk assessment policing models: lessons from the Durham HART model and "Experimental" proportionality' (2018) 27(2) *Information & Communications Technology Law* 223.

learning methods have been used in similar predictive tools used to assist with sentencing and parole decisions in the US, e.g. Correctional Offender Management Profiling for Alternative Sanctions (COMPAS).<sup>9</sup>

OASys is intended to provide information on likelihood of reoffending, the needs of an offender (relating to offending behaviour), the risk of serious harm to others and to the offender, and to help manage the risk of serious harm. The Offender Group Reconviction Scale (OGRS) uses static risk factors only, to provide a risk score for the likelihood of reoffending within 1-2 years. The algorithm is occasionally reviewed and updated and the current version is OGRS4. A combination of static and dynamic risk factors are used for two other algorithmic components of an OASys assessment: the OASys General reoffending Predictor (OGP) and the OASys Violence Predictor (OVP). There is also a Risk of Serious Harm (RoSH) assessment which aims to assess the likelihood of future life-threatening and/or traumatic events.

The core OASys assessment involves questions around offending-related needs, personality, social factors and other influences on offending behaviour.<sup>10</sup> Static factors used for OGRS, OGP and OVP include gender, age and previous convictions. Dynamic factors for OGP and OVP can be taken from the core OASys assessment and include alcohol and drug misuse, employment status and accommodation. The RoSH is assessed by the clinical judgment of probation officers,<sup>11</sup> who use results from actuarial risk assessment scores to guide them in making the assessment.<sup>12</sup> The data which is input into OASys and OGRS comes from questions asked of the offender during an interview with the probation officer as well as Police National Computer (PNC) data, e.g. previous convictions.<sup>13</sup> Data from other sources can be used to verify some of the information acquired during interview. The professional judgment of the probation officer plays a greater role in assessing some factors, such as the offender's attitude to the offending behaviour.

The OASys assessment combines relevant scores with the professional judgment of the probation officer making the assessment. OASys assessments and OGRS scores can be used to inform sentencing decisions as part of a pre-sentence report (PSR) prepared by a probation officer and can also be used to inform decisions about parole. The role of PSRs is to provide an analysis of the offence and offender, including risk of harm to the offender or others and the likelihood of reoffending. Advocates commonly rely on PSRs in the course of advancing their

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<sup>9</sup> See Danielle Kehl, Priscilla Guo, and Samuel Kessler, 'Algorithms in the Criminal Justice System: Assessing the Use of Risk Assessments in Sentencing' (2017) Responsive Communities Initiative, Berkman Klein Center for Internet & Society, Harvard Law School.

<sup>10</sup> Moore (n 5), p.4

<sup>11</sup> Ibid.

<sup>12</sup> HM Prison and Probation Service, *Risk of Serious Harm Guidance 2020* (HM Prison and Probation Service, April 2020).

<sup>13</sup> Moore (n 5)

arguments in sentencing hearings. OASys assessments and OGRS scores contained in PSRs can therefore influence judicial decision-making about a suitable sentence, including whether an offender is imprisoned or not.<sup>14</sup> Whilst the information derived from OASys and OGRS can be influential on the outcome of sentencing hearings, the final decision as to sentence rests with the judge or magistrates. Sentencers do not have to follow recommendations made in a PSR and are not under any special obligation to follow OASys or OGRS scores.

PSRs can be in the form of a full, standard delivery report or a short report (written or oral). For full or short formats, the OGRS score is completed, as well as a risk of serious harm screening in OASys and a risk of serious recidivism calculation.<sup>15</sup> The OGRS score is used in making decisions about whether a particular case is suitable for a short report or not.<sup>16</sup> A full OASys assessment is not carried out for short delivery reports, so the amount of additional context which could explain or elaborate on risk scores which the sentencing court receives is reduced for short report formats. Due to time and resource pressures on the criminal justice system, policy has moved in the direction of encouraging fewer standard delivery reports.<sup>17</sup> Statistics from 2018/19 (pre-pandemic) show that only 3% of PSRs were standard delivery reports, compared with 30% in 2012/13.<sup>18</sup> Therefore, a full PSR with a full OASys assessment is now much less common than a short form report. This trend is likely to continue given the increased pressures on the already struggling criminal justice system, following the disruption to criminal cases caused by the pandemic from 2020.<sup>19</sup>

### **Assessment and evaluation of OASys**

The National Offender Management Service (NOMS), now known as HM Prison and Probation Service, has compiled research and analysis of OASys and OGRS, including research to evaluate reliability. The most recent compendium published by NOMS summarises key studies undertaken to evaluate OASys, OGRS, OGP and OVP.<sup>20</sup> The compendium of research has considered impartiality, in particular raising concerns about race and

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<sup>14</sup> Tiarks (n 3)

<sup>15</sup> Moore (n 5)

<sup>16</sup> Gwen Robinson, 'Stand-Down and Deliver: Pre-Sentence Reports, quality and the new culture of speed' (2017) 64(4) Probation Journal 337.

<sup>17</sup> Ibid.

<sup>18</sup> Her Majesty's Inspectorate of Probation, 'The quality of pre-sentence information and advice provided to courts' (HM Inspectorate of Probation, 2020), p.6.

<sup>19</sup> Ministry of Justice criminal court statistics released in January 2022 showed 59,928 outstanding cases in the Crown Court and 349,277 outstanding in the magistrates' courts at the end of September 2021. Of the outstanding Crown Court cases, 23% were outstanding for a year or more, which is a record high since 2014. See Ministry of Justice, 'Criminal court statistics quarterly: July to September 2021' (*Ministry of Justice* January 2022) <<https://www.gov.uk/government/statistics/criminal-court-statistics-quarterly-july-to-september-2021/criminal-court-statistics-quarterly-july-to-september-2021>> accessed 3 February 2022.

<sup>20</sup> Moore (n 5)

gender. There has also been a recent report from HM Inspectorate of Probation which specifically focused on race equality in probation and considered issues relating to OASys.<sup>21</sup>

There remains debate over whether such risk assessments provide more neutrality or not, including disagreements over the statistical validity of risk assessments tools.<sup>22</sup> The compendium published by NOMS summarises key studies which have been undertaken and adjustments made to OASys and OGRS as a result of the findings.<sup>23</sup> This compendium also included research which found that OGP and OVP had lower predictive validity for minority ethnic groups. The more recent report by HM Inspectorate of Probation indicates that the quality of OASys assessments still needs to be improved for ethnic minorities, with concerns raised about diversity and discrimination not being sufficiently considered in OASys assessments.<sup>24</sup> This report also found that more needed to be done to counter conscious or unconscious bias in the process of OASys assessments.

Whether OASys and OGRS provide more consistency in sentencing decisions has not been established. As noted above, OASys and OGRS are interpreted by a probation officer and used in combination with the probation officer's professional judgment to produce a PSR. The PSR is not binding and is itself subject to judicial interpretation and discretion. It is therefore difficult to isolate the impact of OASys and OGRS on any resulting sentencing decision. Various factors could affect how a probation officer interprets and uses information generated from OASys and OGRS in producing a PSR. For example, their training, professional experience, level of trust in OASys and OGRS and the time they have available to perform the assessment.<sup>25</sup> Both probation officers and sentencers may be more or less sensitive to risk scores produced by OGRS, although there is some research indicating that probation officers are more likely to err on the side of caution in making risk assessments and are more likely to exercise their discretion and override OGRS scores when they show low risk rather than high risk.<sup>26</sup>

### **Academic and public debate on AI and predictive justice**

In the UK, academic commentary is mixed concerning AI and predictive justice. Richard Susskind is perhaps the most prominent proponent of the use of AI systems in court proceedings, including their use to provide binding determinations in the future, arguing that this would widen access to justice by providing swifter and

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<sup>21</sup> HM Inspectorate of Probation, 'Race equality in probation: the experiences of black, Asian and minority ethnic probation service users and staff' (March 2021) <<https://www.justiceinspectorates.gov.uk/hmiprobation/wp-content/uploads/sites/5/2021/03/Race-Equality-in-Probation-thematic-inspection-report-v1.0.pdf>> accessed 4 February 2022.

<sup>22</sup> See Alexander Babuta and Marion Oswald, 'Data Analytics and Algorithms in Policing in England and Wales: Towards A New Policy Framework' (Royal United Services Institute Occasional Paper, February 2020).

<sup>23</sup> Moore (n 5)

<sup>24</sup> HM Inspectorate of Probation, 'Race equality' (n 20).

<sup>25</sup> Hannah-Moffatt, 'The Uncertainties of Risk Assessment Partiality, Transparency, and Just Decisions' (2015) 27(4) Federal Sentencing Reporter 244; Tiarks (n 3).

<sup>26</sup> Maria Ansbro, 'The nuts and bolts of risk assessment: when the clinical and actuarial conflict' (2010) 49(3) The Howard Journal 252 at 262.

cheaper options.<sup>27</sup> Others view the use of AI in predictive justice as more problematic and potentially leading to increased bias and decreased transparency in criminal processes.<sup>28</sup> Concerns about OASys and OGRS in particular have been raised by civil liberties and human rights organisations, such as Big Brother Watch<sup>29</sup> and Fair Trials.<sup>30</sup>

The Law Society, the professional body representing solicitors in England and Wales has established the *Technology and the Law Policy Commission* which released a report on the use of algorithms in the criminal justice system. The Commission found “a lack of explicit standards, best practice, and openness or transparency about the use of algorithmic systems in criminal justice across England and Wales”<sup>31</sup> and raised concerns about the lack of a strong statutory infrastructure governing OASys and OGRS.<sup>32</sup>

There is little public dialogue focused on OASys and OGRS, so it is difficult to determine how their use is perceived by the general public. There have been recent efforts to assess and increase public awareness of the sentencing process more generally, but this does not tend to address OASys and OGRS, instead focusing on types of available sentence, the sentencing guidelines and the sentencing hearing itself.<sup>33</sup>

### **Legal frameworks for predictive justice**

There are not currently any national legal rules specifically tailored to addressing predictive justice in England and Wales and no known proposals for such legislation. There are domestic laws relevant to issues raised by predictive justice and AI more generally, such as the Data Protection Act 2018, UK General Data Protection Regulation (UK GDPR) and the Equality Act 2010 (including the Public Sector Equality Duty), but nothing designed to address the issue directly.

The Centre for Data Ethics and Innovation (CDEI), a government expert body, recently produced a report examining bias in algorithmic decision-making, which is not focused directly on predictive justice, but does make some reference to it. As a general observation on algorithmic decision-making, the report noted that “the

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<sup>27</sup> Richard Susskind, ‘The Future of the Courts’ (The Seventh BAILII Sir Henry Brooke Lecture, November 2020) <<https://www.bailii.org/bailii/lecture/07.html>> accessed 14 February 2022.

<sup>28</sup> Jamie Grace, *Written evidence* (prepared for *The MacPherson Report: twenty-one years on*, 2020) <<https://committees.parliament.uk/writtenevidence/6568/pdf/>> accessed 1 March 2022; Tiarks (n 3).

<sup>29</sup> Big Brother Watch, ‘Big Brother Watch briefing on Algorithmic Decision-Making in the Criminal Justice System’ (January 2020) <<https://bigbrotherwatch.org.uk/wp-content/uploads/2020/02/Big-Brother-Watch-Briefing-on-Algorithmic-Decision-Making-in-the-Criminal-Justice-System-February-2020.pdf>> accessed 3 February 2022.

<sup>30</sup> Fair Trials, ‘Automating Injustice: The Use of Artificial Intelligence and Automated Decision-Making in Criminal Justice in Europe’ (September 2021) <<https://www.fairtrials.org/articles/publications/automating-injustice/>> accessed 3 February 2022.

<sup>31</sup> Law Society (n 6), p. 4.

<sup>32</sup> *Ibid*, p.55.

<sup>33</sup> Nicola Marsh, Emma McKay, Clara Pelly and Simon Cereda, ‘Public knowledge of and confidence in the criminal justice system and sentencing: a report for the sentencing council’ (2019 Sentencing Council) <<https://www.sentencingcouncil.org.uk/publications/item/public-confidence-in-sentencing-and-the-criminal-justice-system/>> accessed 13 February 2022.

overlap between discrimination law, data protection law and sector regulations is becoming increasingly important”,<sup>34</sup> but concluded that there was no current need for new primary legislation to address algorithmic bias, although it was recommended that this be kept under review.<sup>35</sup>

The CDEI has also produced an ‘AI Barometer’ which addresses some issues relating to predictive justice, in particular summarising risks and opportunities of the use of AI. Opportunities identified were more proportionate and unbiased court decisions, as well as better access to justice (through a reduction in costs achieved by more process automation and the use of chatbots to provide cheaper legal advice).<sup>36</sup> Risks identified included the curtailment of privacy, liberty and other human rights, as well as the risk of increased bias and decreased transparency.<sup>37</sup>

The UK Government has developed guidance relevant to, though not directly aimed at, predictive justice. The Data Ethics Framework<sup>38</sup> provides a set of principles intended to guide the ethical use of data by the government and wider public sector. There is also guidance on *Understanding artificial intelligence ethics and safety*, aimed at those involved in designing and deploying AI projects.<sup>39</sup> This was developed in partnership with the Alan Turing Institute (the national institute for data science and AI) which has produced a more expansive guide on which the government guide is based.<sup>40</sup>

The Government has also produced guidance on automated decision-making,<sup>41</sup> through the creation of a 7-point framework for government departments to use to help guide them in making “safe, sustainable and ethical use of automated or algorithmic decision-making systems”.<sup>42</sup> The 7 points are: Test to avoid any unintended outcomes or consequences; Deliver fair services for all users and citizens; Be clear who is responsible; Handle data safely and protect citizens’ interests; Help users and citizens understand how it impacts them; Ensure compliance with the law; and Build something that is future proof.<sup>43</sup>

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<sup>34</sup> Centre for Data Ethics and Innovation, ‘Review into bias in algorithmic decision-making’ (November 2020) <<https://www.gov.uk/government/publications/cdei-publishes-review-into-bias-in-algorithmic-decision-making/main-report-cdei-review-into-bias-in-algorithmic-decision-making#the-regulatory-environment-1>> accessed 13 February 2022.

<sup>35</sup> Ibid.

<sup>36</sup> CDEI AI Barometer (n 2).

<sup>37</sup> Ibid.

<sup>38</sup> DCMS, *Data Ethics Framework* (HM Government 2018) <<https://www.gov.uk/government/publications/data-ethics-framework>> accessed 30 January 2022.

<sup>39</sup> UK Government, ‘Understanding artificial intelligence ethics and safety’ (2019) <<https://www.gov.uk/guidance/understanding-artificial-intelligence-ethics-and-safety>> accessed 30 January 2022.

<sup>40</sup> David Leslie, ‘Understanding artificial intelligence ethics and safety: A guide for the responsible design and implementation of AI systems in the public sector’ (The Alan Turing Institute, 2019) <[https://www.turing.ac.uk/sites/default/files/2019-06/understanding\\_artificial\\_intelligence\\_ethics\\_and\\_safety.pdf](https://www.turing.ac.uk/sites/default/files/2019-06/understanding_artificial_intelligence_ethics_and_safety.pdf)> accessed 30 January 2022.

<sup>41</sup> HM Government, ‘Ethics, Transparency and Accountability Framework for Automated Decision-Making’ (May 2021) <<https://www.gov.uk/government/publications/ethics-transparency-and-accountability-framework-for-automated-decision-making/ethics-transparency-and-accountability-framework-for-automated-decision-making>> accessed 30 January 2022.

<sup>42</sup> Ibid.

<sup>43</sup> Ibid.

### **Accountability and transparency**

Transparency about the technological functioning of OASys and OGRS is pursued through the publication of information by the Ministry of Justice, including analysis of predictive performance.<sup>44</sup> However, there is no legal requirement governing the type or frequency of information to be published, indeed there is no legal obligation to publish any such information at all. Transparency is therefore currently not effectively guaranteed. It is also worth noting that whilst some information is currently made available, this does not translate directly into comprehensibility or utility (particularly for unrepresented defendants) and the information might not be up to date.

There is not at present a strong accountability framework in place. However, general legal frameworks concerning issues relevant to predictive justice, such as data protection and equality and human rights, may provide some accountability. In its report referred to above, the CDEI found that the current regulatory framework for algorithmic decision-making was in some ways sufficient, in that no additional specialised regulator needed to be created as yet. However, the CDEI also recommended that relevant existing regulators such as the Equality and Human Rights Commission (EHRC) and the Information Commissioner's Office (ICO) needed to make changes, including adapting their enforcement to better address algorithmic decision-making.<sup>45</sup> The Law Society has also recommended bolstering the role of the ICO, stating that the ICO "must be adequately resourced to examine algorithmic systems with rigour on a proactive, rather than a predominantly reactive basis".<sup>46</sup> The Law Society also recommends that the ICO create a code of practice specifically aimed at the use of algorithms in criminal justice.<sup>47</sup>

### **Rights and algorithmic fairness**

Discussions about rights, including the right to equality, have largely centred around predictive policing in England and Wales (see for example research by Marion Oswald<sup>48</sup> and Jamie Grace<sup>49</sup>). There is emerging discussion about the issue of bias in predictive justice in England and Wales. It has recently been argued that the use of algorithms in sentencing is likely to increase bias in the sentencing process.<sup>50</sup> Concerns have been raised about OASys and OGRS and, as discussed above, a report by HM Inspectorate of Probation has highlighted the need for improvement in OASys assessments for minority ethnic offenders.<sup>51</sup>

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<sup>44</sup> Moore (n 5).

<sup>45</sup> CDEI Review into bias (n 32).

<sup>46</sup> Law Society (n 6), p. 63.

<sup>47</sup> Ibid.

<sup>48</sup> Oswald et al (n 7).

<sup>49</sup> See for example Jamie Grace, 'Algorithmic impropriety' in UK policing?' (2019) *Journal of Information Rights, Policy and Practice*.

<sup>50</sup> Tiarks (n 3).

<sup>51</sup> HM Inspectorate of Probation, 'Race equality' (n 26).

A useful comparison is the COMPAS (Correctional Offender Management Profiling for Alternative Sanctions) algorithm<sup>52</sup> used in the course of sentencing in parts of the US. It has been argued that this algorithm produces racially biased risk scores, underpredicting recidivism for white defendants and overpredicting recidivism for black defendants.<sup>53</sup> Concerns have also been raised about other proposed uses of machine learning algorithms in sentencing, namely the hypothetical model put forward by Vincent Chiao, who suggests building an algorithm to predict proportionality in sentencing, using data from existing sentencing decisions.<sup>54</sup> It has been argued that pre-existing biases would be reflected in such an algorithm.<sup>55</sup>

There is discussion in England and Wales concerning the role of the judge and the interaction between human and algorithm.<sup>56</sup> In relation to OASys and OGRS, it is difficult to know precisely how much influence these tools have on judicial decision-making. Judges and magistrates retain discretion and are not under any obligation to follow recommendations based on risk assessments provided via OASys and OGRS.<sup>57</sup> This does not necessarily guarantee the judge's independence however, as such tools may appear more objective than they in fact are, which could encourage judges and magistrates to place greater reliance on any prediction given, so discretion may be less likely to be exercised.<sup>58</sup>

Some commentators have argued for an increased role for AI in the administration of justice to increase accessibility, including allowing AI systems to make binding determinations in some circumstances.<sup>59</sup> Contrary to this, others have suggested that fully automated decisions are unlikely and have highlighted the wider role of courts and the judiciary.<sup>60</sup> The importance of proper access to justice and the broader public function of the courts was highlighted in the UK Supreme Court case of *UNISON v Lord Chancellor* [2017].<sup>61</sup>

The ability to challenge decisions based on predictive tools is a significant concern. In the context of sentencing in England and Wales, it is difficult for defence representatives to challenge decisions arising from OASys or OGRS assessments. A sentence can be appealed and this could include challenging OASys or OGRS scores as

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<sup>52</sup> Kehl et al (n 8).

<sup>53</sup> Julia Angwin, Jeff Larson, Surya Mattu and Lauren Kirchner, 'Machine Bias', (ProPublica 23 May 2016) <<https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing>> accessed 6 January 2022.

<sup>54</sup> Vincent Chiao, 'Predicting Proportionality: The Case for Algorithmic Sentencing' (2018) 37(3) *Criminal Justice Ethics* 238.

<sup>55</sup> Tiarks (n 3), p.17.

<sup>56</sup> See for example Reuben Binns, 'Human Judgment in algorithmic loops: Individual justice and automated decision-making' (2022) 16 *Regulation & Governance* 197.

<sup>57</sup> Tiarks (n 3).

<sup>58</sup> *Ibid*, p.13

<sup>59</sup> Richard Susskind, *Online courts and the future of justice* (OUP 2019).

<sup>60</sup> John Morison and Adam Harkens, 'Re-engineering justice? Robot judges, computerised courts and (semi) automated legal decision-making' (2019) 39 *Legal Studies* at 634.

<sup>61</sup> *R (on the application of Unison) v Lord Chancellor* [2017] UKSC 51, in particular see para 66.

part of a ground of appeal. However, whilst some information is available about the inner workings of these assessments, the information is not extensive and not necessarily up to date. It is also difficult to ascertain the extent to which discretion has been exercised by the probation officer making the risk assessment,<sup>62</sup> and ultimately difficult to identify the extent to which OASys or OGRS scores have been relied on in coming to a sentencing decision, unless expressly referenced by a judge. In addition, there are time pressures on criminal courts and defence advocates which may impede any efforts to investigate how a particular risk assessment has been arrived at. It would be even more challenging for an unrepresented defendant to know how to access information and adequately challenge decisions based on OASys and OGRS which they perceive to be unfair. This is pertinent as there are growing numbers of people representing themselves in criminal proceedings in England and Wales.<sup>63</sup>

There is some epistemological discussion about replacing legal reasoning with mathematical calculation.<sup>64</sup> It has been argued, for example, that this is a particularly problematic endeavour in a common law system, where there might be a lack of certainty and ongoing debate surrounding legal rules.<sup>65</sup> Similarly, it has been argued that sentencing is an unpromising area for the replacement of legal reasoning with algorithmic processes due to the value-laden nature of sentencing and the uncertainty surrounding which factors should be taken into account, the particular impact they should have on sentence and which purpose of sentencing should be pursued in any particular case.<sup>66</sup>

There are general discussions about the privatisation of parts of the criminal justice system, some of which have relevance to OASys and OGRS, such as concerns about developments in legal tech leading to greater privatisation of the criminal justice system and reduced transparency and accountability.<sup>67</sup> Examples have been raised of privatisation contributing to significant problems in the criminal justice system in the past,<sup>68</sup> such as the failings of private company G4S in running HM Prison Birmingham, which led to the prison being returned to government control.<sup>69</sup>

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<sup>62</sup> Tiarks (n 3).

<sup>63</sup> Transform Justice, 'Justice denied? The experience of unrepresented defendants in the criminal courts' (April 2016) <[http://www.transformjustice.org.uk/wp-content/uploads/2016/04/TJ-APRIL\\_Singles.pdf](http://www.transformjustice.org.uk/wp-content/uploads/2016/04/TJ-APRIL_Singles.pdf)> accessed 13 February 2022.

<sup>64</sup> See for example the overview given in Binns (n 55).

<sup>65</sup> Iain Mitchell QC, 'Predictive Justice in the UK' (Arnot Manderson Advocates, 22 November 2019) <<https://amadvocates.co.uk/2019/iain-mitchell-qc-on-predictive-justice-in-the-uk/>> accessed 1 February 2022.

<sup>66</sup> Tiarks (n 3)

<sup>67</sup> See for some discussion Roger Brownsword and Alon Harel, 'Law, liberty and technology: criminal justice in the context of smart machines' (2019) 15 *International Journal of Law in Context* 107.

<sup>68</sup> Tiarks (n 3).

<sup>69</sup> HM Chief Inspector of Prisons, 'Report on an unannounced inspection of HMP Birmingham' (Crown Copyright 2018), p.5 <<https://www.justiceinspectorates.gov.uk/hmiprisoners/wp-content/uploads/sites/4/2018/12/HMP-Birmingham-Web-2018.pdf>> accessed 12 January 2022.

The Law Society has raised concerns about outsourcing aspects of the development of algorithmic systems for use in criminal justice to private entities, stating that:

Value-laden decisions, such as problem definition, structuring, or choice between trade-offs in models, should never be explicitly or implicitly outsourced, for example through contracting or procurement. ... Opaque systems, or systems not able to be easily technically audited by the bodies responsible for them, make lawfulness downstream substantively and procedurally hard to achieve.<sup>70</sup>

The Law Society's recommendation is for the Government to develop a statutory procurement code for algorithmic systems in criminal justice and a duty linked to that code.

### **Conclusion**

There is established use of predictive risk algorithms in sentencing in England and Wales and the incentives for pursuing predictive justice are growing, as the criminal justice system comes under increasing financial and time pressures. However, the more justice-focused incentives, such as increased consistency and transparency, have yet to be proven and the legal framework remains underdeveloped. This will become increasingly problematic as the use of predictive justice advances. This is likely to happen in the near future, as seen by the increasing use of AI in policing<sup>71</sup> and the use of MLAs in sentencing in other jurisdictions.<sup>72</sup> Greater attention needs to be given to developing legal and ethical frameworks to properly support the fair, accountable, transparent and rights respecting development of predictive justice in England and Wales.

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<sup>70</sup> Law Society (n 6), p. 62.

<sup>71</sup> Oswald et al (n 7).

<sup>72</sup> See Kehl et al (n 8).