

## VII. BALANCING LIBERTY AND SURVEILLANCE: THE INTERSECTION OF DIGITAL MONITORING AND BAIL JURISPRUDENCE IN INDIA

- DEVANSH MALHOTRA\* AND KANISHK GOYAL\*\*

### Abstract

*The integration of digital surveillance into bail practices has reshaped the criminal justice landscape and has raised critical questions about its compatibility with constitutional safeguards and international human rights. While tools such as GPS tracking and geofencing offer practical alternatives to pretrial detention, they also pose significant privacy and dignity concerns. Herbert Packer's Crime Control and Due Process models provide a theoretical lens to analyse this issue, highlighting the tension between public safety and individual rights. In India, the evolving legal framework, including the Digital Personal Data Protection Act, 2023, and judicial precedents like KS Puttaswamy v Union of India, emphasize proportionality, fairness, and privacy. However, inconsistencies in judicial decisions and the absence of robust regulatory mechanisms challenge the delicate balance between surveillance efficiency and rights protection. This paper explores the implications of electronic monitoring, advocates for nuanced guidelines, and proposes harmonizing digital*

---

\* Devansh Malhotra is a practising Advocate at the Punjab and Haryana High Court.

\*\* Kanishk Goyal is a first-year BA.LL.B. (Hons.) student at the National Law Institute University, Bhopal. All errors, if any, are solely attributable to the authors. The authors may be reached at [adv.devanshmalhotra99@gmail.com](mailto:adv.devanshmalhotra99@gmail.com), for any comments or feedback.

*advancements with constitutional values, ensuring justice does not come at the cost of fundamental freedoms.*

**Keywords:** *Digital Surveillance, Bail Jurisprudence, Privacy Rights, Proportionality Principle, Herbert Packer Models*

## I. INTRODUCTION

The advancements in technology and their integration into criminal justice systems in the 21st century, is impacting the way bail conditions are enforced, with digital surveillance tools becoming popular and playing an increasingly prominent role to serve the purpose. Such tools, such as GPS trackers, geofencing technologies, cell site/cell tower triangulation/trilateration, and mobile applications, are designed to monitor accused who are granted bail, ensuring compliance with court-ordered bail conditions imposed on them. Such moves are projected as economically efficient and pragmatic alternatives to pre-trial incarceration of accused dispensing with the need of physical custody of accused. Concomitantly, the adoption of these technologies has raised many eyebrows amongst the legal fraternity especially about their legal, ethical, and societal implications.

Central to this discussion is the challenge of balancing the state's interest in preventing the accused from absconding and ensuring public safety, against the fundamental rights afforded to accused individuals by the legal system. Such surveillance measures, while proven beneficial in certain contexts, have a tendency to infringe upon the right to privacy, disproportionately affecting marginalized groups, including

economically disadvantaged who may lack access to necessary technology required for fulfilment of such bail conditions imposed by the courts. At times, in a country like India with diverse landscape, accused reside in remote locations having poor connectivity due to rugged geographical terrain can potentially add to woes of the accused. Furthermore, employing such techniques by the State results in overreach, with conditions that can be termed as excessively intrusive and which also lack proportionality to the offence committed or the circumstances of the accused thereby violating the rights of the accused.

This paper explores the evolving role of such new surveillance techniques in bail matters under criminal law while testing them on the touchstone of constitutional protections, criminal jurisprudence and international human rights frameworks. Further, it delves into pressing issues such as the potential misuse of surveillance data gathered, the mental toll of constant monitoring on the accused, and the absence of a clear regulatory framework to govern the use of such technologies which are being employed by the State. The paper does not seek to address or challenge the fact that the State employs surveillance without adhering to the domestic framework requiring competent authority permissions, often resorting to its illegal use to track, monitor, and apprehend alleged accused individuals but explores the evolving role of such new surveillance techniques in bail matters under criminal law, examining them against the touchstone of constitutional protections and international human rights frameworks.

Finally, the paper calls for a balanced approach: first that incorporates technology responsibly to meet legitimate state aims while respecting the enshrined safeguards to protect individual rights. Second, a robust regulatory framework, guided by the principles of equity, accountability, and proportionality, as a *sine qua non* to ensure that such surveillance techniques serve justice without eroding the fundamental freedoms.

## II. JURISPRUDENTIAL RATIONALE

Herbert Packer's<sup>1</sup> **Crime Control** and **Due Process** models can serve as a guiding lamp in understanding the role of digital surveillance in bail matters. These models highlight the tension between ensuring public safety and upholding individual rights simultaneously, a conflict that lies at the root of using such advancements in technology to monitor individuals released on bail and awaiting trial. His Crime Control and Due Process models present different views on digital surveillance in bail matters. The Crime Control Model focuses on public safety and efficiency, seeing tools like GPS tracking as a way to ensure compliance with bail conditions and prevent re-offending. However, this approach can strip away personal dignity, invade privacy, and treat individuals as guilty before trial if applied in exclusivity. On the other hand, the Due Process Model emphasizes fairness and asks whether these surveillance measures are truly needed.

---

<sup>1</sup> Herbert L Packer, *The Limits of the Criminal Sanction* (Stanford University Press 1968).

For some, especially those from disadvantaged backgrounds, meeting these requirements can feel like an unfair burden, deepening existing inequalities.

The **Crime Control Model** prioritizes efficiency and the repression of criminal behaviour, aligns closely with the goals of digital surveillance in bail cases. Electronic monitoring tools like GPS trackers and geofencing help authorities ensure that individuals adhere to bail conditions, reducing the risk of absconding and preventing the need for costly pretrial detention. As Samuel Wiseman in his work<sup>2</sup> argues, these technologies provide a cost-effective alternative to incarceration, aligning with the model's emphasis on public safety and resource efficiency.

However, the model's focus on efficiency can sometimes justify invasive surveillance measures that encroach on privacy rights. Lauryn Gouldin in his work 'Defining Flight Risk'<sup>3</sup> critiques the tendency of judicial overreach and risk aversion by the judges in his work. Judges often impose overly restrictive surveillance measures, even for individuals who pose low risks of nonappearance, reflecting the model's tendency to prioritize control over fairness.

---

<sup>2</sup> Samuel R Wiseman, 'Pretrial Detention and the Right to Be Monitored' (2014) 123 Yale Law Journal 1344 <<https://www.jstor.org/stable/23744444>> accessed 5 January 2025.

<sup>3</sup> Lauryn P Gouldin, 'Defining Flight Risk' (2018) 85 University of Chicago Law Review 677 <<https://www.jstor.org/stable/44686206>> accessed 5 January 2025.

In contrast, the **Due Process Model** emphasizes fairness, procedural safeguards, and the protection of individual rights. From this perspective, digital surveillance raises significant concerns. For example, Wiseman highlights the privacy trade-offs inherent in monitoring, arguing that these measures, while less invasive than detention, still risk ‘net-widening’, where surveillance extends beyond its intended scope.

The model also critiques the socioeconomic inequities exacerbated by digital monitoring. As highlighted in *Jail, Bail, and the Poor* published in EPW,<sup>4</sup> many marginalised individuals struggle to fulfil the technological or financial requirements of such systems, effectively penalizing them for their poverty, thereby leading to criminalisation of poverty. The Due Process Model calls for tailored and proportional measures, ensuring that interventions respect individual dignity and address specific risks without overreach as in the case of Indian privacy laws.

### III. TESTING THESE MOVES ON THE TOUCHSTONE OF CONSTITUTIONALITY

The evolution of privacy laws in India is a work in progress, keeping in mind the country's penchant for state surveillance as well as individual liberties. While India has consistently sought to expand its

---

<sup>4</sup> 'Jail, Bail and the Poor' (2011) 46 *Economic and Political Weekly* 8 <<https://www.jstor.org/stable/23065533>> accessed 5 January 2024.

surveillance framework, as evidenced by the MP Sharma,<sup>5</sup> Kharak Singh,<sup>6</sup> and Govind<sup>7</sup> cases, the Puttaswamy<sup>8</sup> judgment acknowledged that such regimes infringe upon aspects of the inner realm of consciousness and decisional autonomy.

The first reflection on the privacy debate was witnessed in *M.P. Sharma v. Satish Chandra* (1954).<sup>9</sup> In this case, the Supreme Court, during its examination of the constitutionality of the search and seizure provisions of the Code of Criminal Procedure<sup>10</sup> and also touched upon the right to privacy and how it relates to Article 20(3).<sup>11</sup> It determined that the search and seizure of documents did not constitute ‘compelled testimony’ and therefore does not violate Article 20 (3).<sup>12</sup> The court made it clear that the government is entrusted with the responsibility of carrying out searches and seizures, without hesitation, this had no bearing on the argument that it was a breach of an individual’s right of privacy. The Court acknowledged the importance of privacy but given that the Indian Constitution has nothing analogous to the Fourth Amendment of the U.S. Constitution (prohibiting unreasonable searches and seizures) they upheld the government’s power of search and seizure.

---

<sup>5</sup> *M.P Sharma v Satish Chandra* AIR 1954 SC 300.

<sup>6</sup> *Kharak Singh v State of Uttar Pradesh* AIR 1963 SC 1295.

<sup>7</sup> *Govind v State of Madhya Pradesh* (1975) 2 SCC 148.

<sup>8</sup> *KS Puttaswamy v Union of India* (2017) 10 SCC 1.

<sup>9</sup> *M.P Sharma* (n 5).

<sup>10</sup> Code of Criminal Procedure 1898, ss 94, 96 (1).

<sup>11</sup> Constitution of India 1950, art 20 (3).

<sup>12</sup> *ibid.*

Eight years after the first debate on the Right to Privacy under *M.P. Sharma*, the 6 Judge bench of the Supreme Court in *Kharak Singh v. State of Uttar Pradesh* (1962)<sup>13</sup>, examined the constitutionality of Regulation 236(b)<sup>14</sup> that allowed night-time domiciliary visits to persons considered as habitual offenders. Section 12 of the U.P Police Act, 1861, gave police the power to take any action that could expedite the performance of their duties which paved the way for harassment of the victim in the form of night-time domiciliary visits, random identity checks, compulsory reporting to police stations before going anywhere and much more. The court took a step in the right direction by holding that the night time domiciliary visits were unconstitutional but limited its scope only to the night time domiciliary and deemed that the remaining provisions were not unconstitutional. Justice Subba Rao in his minority opinion argued that the entire provision was violative of Article 21 of the constitution of India because it violated the Right to Privacy. He cited two landmark cases in his opinion, namely: - *Munn v. Illinois*<sup>15</sup> and *Wolf v. Colorado*,<sup>16</sup> and highlighted that human existence was not akin to animal existence. Human existence means something much more than just physical survival and includes the right to live with human dignity and all that goes along with it, expressing oneself in diverse forms, freely, moving about and mixing and commingling with fellow human beings.<sup>17</sup> This was the more

---

<sup>13</sup> *Kharak Singh* (n 6).

<sup>14</sup> Uttar Pradesh Police Regulations 1942, Regulation 236(b).

<sup>15</sup> (1877) 94 US 113.

<sup>16</sup> (1949) 338 US 25.

<sup>17</sup> *State of Uttarakhand v Ajam* (2017) SCC Utt 695.



expansive view of privacy which seems to be a part of personal liberty as emphasized under Article 21,<sup>18</sup> whilst at the same time taking into consideration the toll that endless privacy invasion has on the human mind.

Building on the foundation and elaborating on Justice Subba Rao's dissenting opinion, *Govind v. State of Madhya Pradesh*<sup>19</sup> (1975) is perhaps the next most notable case in the area of law in respect towards privacy. The court in this case acknowledged the pre-existence of the right to privacy but at the same time the court warned that the right was not absolute. These regulations were, to a limited extent, upheld by a narrow reading of them but the judgement warned the state against going too far. Facts of this case were on similar lines of *Kharak Singh* and the legislation in question was Regulation 855 and 856 of the police regulations which was backed by Section 46(2) of the Police Act, 1961 which allowed irregular checks on a potential offender, tracking the offender, collecting information on him etc. Right to Privacy was given a back seat in this judgement where the court ruled in favour of the state. The court distinguished it from *Kharak Singh* by reasoning that in *Kharak Singh* merely an executive order was in question and here it is backed by a definite legislation.<sup>20</sup> They reasoned that the Right to Privacy should be restricted to executive orders only and should not transcend state interests.

---

<sup>18</sup> Constitution of India, art 21.

<sup>19</sup> *Govind* (n 7).

<sup>20</sup> *Kharak Singh* (n 6).

In 2016, in the *Modern Dental College*<sup>21</sup> case, where the unaided private institutions challenged the validity of the *Niji Vyavsayik Shikshan Act*<sup>22</sup> regulating fee and admission in private institutions, the 4-pronged test of proportionality was established.<sup>23</sup> For a law to be proportional, it must satisfy the following 4 prongs: - (a) the action must be sanctioned by law (b) the proposed action must be necessary in a democratic society for a legitimate aim (c) the extent of such interference must be proportionate to the need for such interference (d) There must be procedural guarantees against abuse of such interference.

Conclusively, using this test, the right of privacy was ensured with certainty to be a fundamental right by the Supreme Court in *K.S. Puttaswamy*.<sup>24</sup> In this case, all nine judges of the bench unanimously agreed that privacy is a constitutional right under articles 14, 19, and 21. The case was a historic one, as it overruled the case of *MP Sharma*<sup>25</sup> and *Kharak Singh*,<sup>26</sup> where it was held that it was not a fundamental right of every individual to be left alone because it is synonymous to the dignity bestowed to a human being. Furthermore, the *Puttaswamy* judgement also explicitly overruled the *ADM Jabalpur*<sup>27</sup> case, which marked a departure from the approach which was centred around *lex*

---

<sup>21</sup> *Modern Dental College and Research Centre v State of Madhya Pradesh* (2009) 7 SCC 750.

<sup>22</sup> *Madhya Pradesh Niji Vyavsayik Shikshan Sanstha (Adhiniyam)*, 2007.

<sup>23</sup> *ibid.*

<sup>24</sup> *KS Puttaswamy* (n 8).

<sup>25</sup> *MP Sharma* (n 5).

<sup>26</sup> *Kharak Singh* (n 6).

<sup>27</sup> *ADM Jabalpur v Shivkant Shukla* (1976) 2 SCC 52.

(*black letter law*) to one where *jus* (*rights-based approach*) takes the central stage.

The evolution of privacy jurisprudence in India underscores the gradual shift towards protecting individual rights against state surveillance. The trajectory from the early cases to the Puttaswamy judgment reflects an increasing recognition of privacy as essential to personal liberty and dignity, signalling a continued effort to balance state interests with fundamental rights. Further, we can deduce that now this approach adopted by the Supreme Court is conforming to the due process model of criminal justice administration, of Herbert Packer.<sup>28</sup>

#### IV. HISTORY OF SURVEILLANCE, DICHOTOMY AND JUDICIAL DISCIPLINE IN FRANK VITUS

The idea of state surveillance is not new to Indian jurisprudence, aimed at preventing crimes, it has always been at crossroads with the idea of privacy and liberty because the former has a tendency to overarch and go beyond its jurisdiction. The use of developments in technology being harnessed for surveillance in the State was first challenged in the case of *PUCL v Union of India*<sup>29</sup> where the court emphasised that the right to privacy could only be violated through a procedure established by law. In this case, the Court also acknowledged the absence of procedural safeguards, which are *sine qua non* to ensure a fair and

---

<sup>28</sup> Herbert Packer, *The Limits of the Criminal Sanction* (Stanford University Press 1968).

<sup>29</sup> (1997) 1 SCC 301.

reasonable exercise of this authority. Since then, we have reached so far yet done so little.

In *Frank Vitus v Narcotics Control Bureau*<sup>30</sup> the Supreme Court was adjudicating an appeal against the order of the Delhi High Court regarding the bail conditions of a Nigerian national who was allegedly involved in a drugs case. The High Court, as a condition for granting bail, directed the accused to drop a PIN on Google Maps, enabling the Investigation Officer to monitor his location. The appeal contested the nature of the conditions and it was argued that it was violative of the Right to Privacy as upheld in *KS Puttaswamy*.<sup>31</sup> The court invalidated the condition in regards to sharing the GOOGLE PIN but it is the reasoning given by the court and the potential dichotomy established by the several High Court judgements<sup>32</sup> that deserve our special scrutiny.

It is evident that no bail order should impose arbitrary, fanciful, irrelevant, or unreasonable conditions, as highlighted by Hon'ble Justice J.M. Panchal in *Munish Bhasin v Union of India*.<sup>33</sup> Relying on the affidavit submitted by Google Inc., which confirmed that the Google PIN feature does not enable real-time tracking of the individual

---

<sup>30</sup> [2025] 1 SCR 184; 2025 INSC 30.

<sup>31</sup> *KS Puttaswamy* (n 8).

<sup>32</sup> *State (NCT of Delhi) v. Sanjeev Kumar Chawla* (2020) SCC OnLine Del 1970; *Hussain Abbas @ Tippu v. State of Haryana* CRM-M-1210-2023; *Anup @ Foji v. State of Haryana*, CRM-48167-2023 in CRA-D-813-2019; *Amit Thapliyal v. State & Ors.*, 2023 DHC 1595; *Sushant Kaushik v. State Bail Appln.* 3175/2023 & CrI.M.A. 25642/2023.

<sup>33</sup> (2018) 16 SCC 74.

using the PIN, the Court determined that the condition was ‘redundant’ and did not offer any meaningful support to the investigative agency of the NCB. It must be noted that the reason for the denial of sharing of GOOGLE PIN as a bail condition was its redundancy and not to protect the right to privacy. Ideally, the division bench should have referred this matter to a larger bench considering the indefinite position of law on the matter as highlighted in the case of *Shoma Kanti Sen*.<sup>34</sup> The judgment briefly addressed the issue of live location sharing and continuous tracking, but left several critical questions unresolved.<sup>35</sup>

It is reasonable to applaud the approach of the courts upholding human right and all its attempts to prevent any curtailment on rights, but the absence of an added layer of nuance to this can be catastrophic to the very idea of bail in the first place. The primary purpose of bail is to prevent the incarceration of an individual who is yet to be convicted. Simultaneously, a bail also ensures that the individual does not take bail as a license to indulge in any other illicit and unlawful activities after being released on bail, and if he is found guilty, he could be expeditiously punished including cancellation of the bail granted.<sup>36</sup>

To understand this layer, we wish to elaborate on, we need to look at the statement given by the court which said that imposing any bail condition that enables the Investigation Agency to track continuous movement of the accused released on bail by any means would violate

---

<sup>34</sup> *Shoma Kanti Sen v State of Maharashtra* (2024) 8 SCC 234.

<sup>35</sup> *State of Punjab v Devans Modern Breweries Ltd* (2004) 11 SCC 26.

<sup>36</sup> *State of Bihar v Rajballav Prasad* (2017) 2 SCC 178.

the right to privacy guaranteed under Article 21.<sup>37</sup> The use of the word ‘any’ brings in a plethora of problems that call for much deliberation. Firstly, the statement of the Honourable justice tries to over generalize a practice which is clearly not being followed in the recent judgements of the Supreme Court. Secondly, it created a dichotomy (which will be discussed at length) that has been unresolved and not been referred to a larger bench to establish a clear position of law. And finally, the statement fails to manifest itself in the actions of the court when it dismissed the conditions for redundancy and not to protect privacy.

On the face of it, the above statement of the division bench of the Supreme Court seems to remove all possibility of using live-location as a condition for bail applications. But as pointed out by Dr. A.L. Goodhart in his famous article of about the *ratio decidendi* of a case,<sup>38</sup> not everything said by a judge can be considered to be the ratio of a case. Now dealing with the issue at hand, we can see the dichotomy of the entire situation by looking at a few judgements of the Supreme Court of India. The case of *Puranmal Jat v. State of Rajasthan*<sup>39</sup> is a testament to this dichotomy. The accused, who was tried under NDPS for having 35 Kg poppy straw, in this case was denied bail by the High Court before the Supreme Court granted him bail provided that he made his location available by pairing his phone with that of the investigation officer. Similar conditions were imposed by the Supreme

---

<sup>37</sup> *Frank Vitus* (n 30).

<sup>38</sup> Goodhart AL, 'Determining the Ratio Decidendi of a Case' (1930) 40(2) Yale LJ 161.

<sup>39</sup> (2023) SCC OnLine SC 1418.

Court in the case of *Shoma Kanti Sen v. State of Maharashtra*<sup>40</sup> where the accused was charged under the UAPA for alleged Maoist links in the Bhima Koregaon case and the Court granted her bail on the condition that she could not leave Maharashtra; her GPS should be on and her mobile phone paired with the Investigation Officer's ("IO"). Ordinarily, when a two-judge bench disagrees with the opinion of another two-judge bench, judicial discipline necessitates referring the matter to a larger bench to resolve the issue and establish the authoritative legal position. The cases before us demonstrate a clear distinction between the judicial decision of the matter of electronic monitoring during bail conditions with one upholding privacy as in the case of *Frank Vitus*<sup>41</sup> *vis-a-vis* one upholding state interest as in the case of *Shoma Kanti Sen*.<sup>42</sup>

This was followed by the judgement of the Delhi High Court in *ED v. Raman Bhuraria*<sup>43</sup> where the bail conditions included sharing of active mobile number with the IO which must remain operational at all times and the sharing of live location with the IO at all times. These are two of the many instances that have been highlighted. The court addressed this by stating that the Court may have done so in a similar condition but in those cases, the Court was not called upon to decide the issue of the effect and legality of such a condition.

---

<sup>40</sup> *Shoma Kanti Sen* (n 34).

<sup>41</sup> *Frank Vitus* (n 30).

<sup>42</sup> *Shoma Kanti Sen* (n 34).

<sup>43</sup> (2023) SLP (Criminal) Diary No 23447/2023.

So, going along the lines of judicial discipline we wonder why the matter is still not referred to a larger bench of the Supreme Court to settle the position of law surrounding the surveillance using technological advancements during bail. “Judicial discipline envisages that a coordinate Bench follow the decision of an earlier coordinate Bench. If a coordinate Bench does not agree with the principles of law enunciated by another Bench, the only proper course is to refer the matter to a larger Bench.”<sup>44</sup> The breakdown of judicial discipline is not just a matter of internal administration but a grave constitutional matter and worrisome for the rule of law.<sup>45</sup>

It is essential that we examine the use of GPS trackers to track the accused on bail by employing the 4 Pronged test of proportionality given in *Modern Dental College* and confirmed in *KS Puttaswamy* and *Aadhaar*.<sup>46</sup> The test says that law or regulation is proportional when it has a legitimate aim, there is rational nexus between impugned measures taken and the aim, the regulation is least restrictive in nature and lastly, there is a balance between the extent to which rights are infringed and the overall public benefit without having a disproportionate effect on the individual. The usage of trackers by the state for surveillance of the accused satisfies the first two prongs as the aim of the state is clearly to prevent the accused from committing any

---

<sup>44</sup> *State of Punjab v. Devans Modern Breweries Ltd* (2004) 11 SCC 26.

<sup>45</sup> Alok Prasanna Kumar, 'Judicial Discipline and Judicial Authority' (2024) 59(34) *Economic and Political Weekly* 15<<https://www.epw.in/journal/2024/34/law-and-society/judicial-discipline-and-judicial-authority.html>> accessed on 3 January 2025.

<sup>46</sup> *Modern Dental College* (n 21); *KS Puttaswamy* (n 8).



crime or running away and employing GPS trackers serves as a suitable means of reaching that goal. The major points of contention are the latter two prongs. To check if a restriction is the least restrictive or not, we have to check whether there are other alternative measures that can serve the same purpose and reduce the restriction on individual rights. In the case of bail, there are many methods that ensure that the accused doesn't flee and maintains appropriate conduct relating to cooperating with the investigation, attendance during the trial, non-tampering of evidence including intimidation of witnesses such as: - passport seizures,<sup>47</sup> travel restrictions, high bail amount and surety supervision. These measures don't use 24-hour surveillance but still deter the accused and renders him almost incapable of fleeing. Furthermore, the restriction has a disproportionate impact on the right holder as it violates an individual's Right to Privacy, curbs his Freedom of Speech by making him wary of a device tracking him, puts economic hardships on him and subjects him to social stigma and disdain although his offence is yet to be proved. Thus, it fails to satisfy the test of proportionality and due process as given in *KS Puttaswamy*<sup>48</sup> and *Aadhaar*.

## V. EXAMINING THE INTRODUCTION OF SURVEILLANCE TECHNOLOGIES THROUGH THE LENS OF CRIMINAL LAW

---

<sup>47</sup> *Shyam Sahni v Arjun Prakash* (2001) 4 SCC 71; *Ravi Bala and Ors v State of Himachal Pradesh* (2020) 7 SCC 527.

<sup>48</sup> *KS Puttaswamy* (n 10).

The development of criminal law has been trying to keep pace with the social and above all technological developments. Many examples are testament to this fact, such as the introduction of forensic investigative techniques during the investigation stage helps to gather impeccable evidence in cases to bring accused to the book and securing justice for the victim. In India also in the recent past, the Courts<sup>49</sup> have started to appreciate the value of assistance rendered by scientific advancements in the criminal justice delivery system. However, we must bear in mind the fact that use of technology lately has been limited to evidence collection and corroboration, investigation, or sparingly used for serving the summons, summoning the witnesses through email/WhatsApp and recording their statements through audio-video means,<sup>50</sup> to mention a few.

With respect to the enforcement aspect, the harnessing of such technological developments like GPS, google pin sharing, etc. to regulate bail conditions has been a recent trend in India. Some countries in the west have been employing such technologies for quite some time. The principle of presumption of innocence is a cornerstone of criminal jurisprudence, ensuring that an accused is considered innocent until

---

<sup>49</sup> *Dharam Deo Yadav v State of Uttar Pradesh* (2014) 5 SCC 509, [2014] 8 SCR 650, [25] (*per* K S Radhakrishnan J).

<sup>50</sup> Vidhi Centre for Legal Policy, *Summons in the Digital Age* (Vidhi Centre for Legal Policy, 2 November 2020) <[https://vidhilegalpolicy.in/wp-content/uploads/2020/11/201102\\_Summons-in-the-Digital-Age.pdf](https://vidhilegalpolicy.in/wp-content/uploads/2020/11/201102_Summons-in-the-Digital-Age.pdf)> accessed 10 January 2024.

proven guilty.<sup>51</sup> However, the increasing reliance on digital surveillance in bail jurisprudence has raised concerns about its compatibility with this fundamental right.

It is noteworthy that, since the re-enactment of major criminal laws in India, has incorporated many significant changes which are being welcomed by the legal fraternity. However, with respect to the provisions of bail which were earlier governed by the Code of Criminal Procedure, 1973 (“CrPC”) are now being governed by the Bhartiya Nagrik Suraksha Sanhita, 2023 (“BNSS”). Section 482(3) in conjunction with Section 485(1) of the BNSS mirrors the language of Section 437(3) and Section 439(1) of the CrPC. Also, provisions relating to grant of bail to persons apprehending arrest (commonly referred as anticipatory bail) are still retained *mutatis mutandis* in the new code under Section 485 from Section 438 in CrPC. Both provisions are drafted in broad terms, granting courts significant discretion to impose conditions deemed appropriate and necessary to serve the interests of justice.

The Courts throughout India, while drawing inspiration from the Crime control model proposed by Packer, as a matter of practice provide a green signal to such conditions to control crime and use scientific techniques for criminal justice delivery. Furthermore, the broadly worded provisions like those discussed above have also shielded such

---

<sup>51</sup> *Coffin v United States* (1895) 156 US 432; *Narendra Singh v. State of Madhya Pradesh* (2004) 10 SCC 699; *Suresh Thipmappa Shetty v State of Maharashtra* 2023 INSC 749.

directions from scrutiny until now. The exact phrase to be precise is “*any such condition as it considers necessary in the interests of justice*” is worded as an all-inclusive one.<sup>52</sup> This provides a blanket immunity to such conditions coupled with the fact that the accused is ready to agree to any condition imposed by the court for bail, just to walk out of prison.<sup>53</sup> The reasons for the same could range from personal to social and even political.<sup>54</sup>

It has been evident that time and again the Apex Court has reiterated that when there is ambiguity in the provisions of the statute and more than one interpretation is possible the Court must resort to the Golden Rule of interpretation.<sup>55</sup> Courts have a duty to adopt an interpretation that furthers the purpose of the legislation while preventing potential misuse, though the mere possibility of misuse does not impact the provision's constitutionality or interpretation.<sup>56</sup> As a lot of water has passed down since the *Sanjay Dutt* case, distinguishing the law laid down in *Sanjay Dutt* from the one laid down in *KS Puttaswamy*<sup>57</sup> the

---

<sup>52</sup> Mokshith Bhyri, 'The Future of Bail Surveillance: Understanding the Implications of the Supreme Court's Stance on Google Pin as a Bail Condition' (CALJ, 6 October 2024) <<https://www.calj.in/post/the-future-of-bail-surveillance-understanding-the-implications-of-the-supreme-court-s-stance-on-goo>> accessed 5 January 2025.

<sup>53</sup> *Ramesh Kumar v State (NCT of Delhi)* (2023) 7 SCC 461.

<sup>54</sup> Prinshul Agarwal & Anubhav Singh, NUALS Law Journal, 'Bail with Strings Attached: *Frank Vitus v NCB* and the Electronically Monitored Bail in India' (NUALS Law Journal, 10 October 2024) <<https://nualslawjournal.com/2024/10/10/bail-with-strings-attached-frank-vitus-v-ncb-and-the-electronically-monitored-bail-in-india/>> accessed 10 January 2025.

<sup>55</sup> *Sanjay Dutt v State through CBI, Bombay (II)* (1994) 5 SCC 410; *State of Himachal Pradesh v. Nirmal Kaur and Ors.* 2022 SCC OnLine SC 1462.

<sup>56</sup> *Sanjay Dutt v State through CBI, Bombay (II)* (1994) 5 SCC 410 [16].

<sup>57</sup> *Justice K.S. Puttaswamy (Retd.) and Anr. v Union of India and Ors.* (2017) 10 SCC 1.

law or state action nowadays has to be proportionate to the harm being caused and share a reasonable nexus with the aim of the move. *KS Puttaswamy* case has since graduated the Right to Privacy to the level of Fundamental Right from a legal right has changed the position of law in Indian jurisprudence. Since the laws or moves of the states can be reviewed judicially and tested on the touchstone of constitutionality, and any move which is contravening the Fundamental Rights is liable to be declared void, unconstitutional and thereby struck down. Such surveillance moves are antithesis to the Right to Privacy as discussed in the section dealing with Constitutional aspects of such moves and hence, violative of the Fundamental Rights, thereby resorting to such moves by the law enforcement agencies across the nation should be discarded in letter and spirit.

Following this, the Apex Court has used this reasoning to interpret the above-discussed phrase, which is adopted *mutatis mutandis* into the newly enacted BNSS from CrPC, the Court in such cases held that in cases of bail such conditions which can qualify as arbitrary, capricious, irrelevant, or unreasonable cannot be imposed.<sup>58</sup> The right to dignity and constitutional safeguards must be upheld by ensuring bail conditions are proportionate, purpose-driven, and tailored to the specific risks of each case.<sup>59</sup> Even in *Gurbaksh Singh Sibbia* case<sup>60</sup>, the

---

<sup>58</sup> *Kunal Kumar Tiwari v State of Bihar* (2018) 16 SCC 74; *Ramesh Kumar v. State (NCT of Delhi)*, (2023) 7 SCC 461; *Munish Bhasin v State (NCT of Delhi)* (2009) 4 SCC 45.

<sup>59</sup> *Parvez Noordin Lokhandwalla v State of Maharashtra* (2020) 10 SCC 77; *Mohammed Zubair v. State (NCT of Delhi) and Ors.* AIR 2022 SC 3649.

<sup>60</sup> *Gurbaksh Singh Sibbia and Ors. v State of Punjab* (1980) 2 SCC 565 [26].

Apex Court ruled that denying bail curtails personal liberty, urging courts to avoid unnecessary restrictions on Section 438 absent in its text. Overburdening it [bail] with conditions risks constitutional challenges under Article 21<sup>61</sup>, per *Maneka Gandhi*<sup>62</sup>. Section 438 ensures fair and reasonable procedures, safeguarding personal freedom.

## VI. DIGITAL AND TECHNOLOGICAL REALITIES AND WORKING

In today's digital age, technology is increasingly becoming an integral part of the justice system, particularly in bail matters. Tools like GPS tracking and geofence warrants are often proposed as conditions for granting bail, ostensibly to ensure compliance and reduce flight risks. While these measures aim to strengthen the justice process, they raise critical questions about privacy, fairness, and proportionality in the absence of robust safeguards under India's legal framework.

GPS tracking<sup>63</sup>, Google PIN tracking<sup>64</sup>, and geofencing<sup>65</sup> differ significantly in their technology and application, particularly in legal and surveillance contexts. GPS tracking utilizes a satellite network to

---

<sup>61</sup> The Constitution of India, art 21.

<sup>62</sup> *Maneka Gandhi v Union of India* (1978) 1 SCC 248.

<sup>63</sup> Elprocus, 'How GPS System Works' (Elprocus) <<https://www.elprocus.com/how-gps-system-works/>> accessed 10 January 2024.

<sup>64</sup> Intuji, 'The Tech Behind Google Maps' (Intuji) <<https://intuji.com/the-tech-behind-google-maps/>> accessed 19 January 2024.

<sup>65</sup> TechTarget, 'Geofencing' (TechTarget) <<https://www.techtarget.com/whatis/definition/geofencing>> accessed 10 January 2025.

provide precise and continuous real-time location data, making it a dependable tool for monitoring movements, often used as a bail condition to ensure compliance. It operates independently of internet connectivity and offers extensive coverage. Google PIN tracking, in contrast, combines GPS, Wi-Fi, and cellular networks within Google's location services framework<sup>66</sup>, requiring the active participation of the individual to share a PIN for location verification. Its dependency on internet connectivity and situational nature makes it less reliable for continuous monitoring. Geofencing introduces a unique dimension by creating virtual geographic boundaries. It uses GPS or RFID technology<sup>67</sup> to trigger alerts or actions when a device enters or exits a defined area. In legal scenarios, geofencing is applied to restrict movement within specific zones, enhancing compliance with bail conditions. While GPS tracking provides broader surveillance, geofencing adds a layer of targeted monitoring, and Google PIN tracking remains limited in its utility due to its reliance on user interaction and internet availability. Together, these technologies highlight the evolving intersection of digital surveillance and legal frameworks.

*The Digital Personal Data Protection Act, 2023* (DPDP) is a landmark legislation that introduces a consent-driven approach to data collection

---

<sup>66</sup> Expert Beacon, 'How to Drop a Pin on Google Maps: The Complete Developer's Guide' (Expert Beacon) <<https://expertbeacon.com/how-to-drop-a-pin-on-google-maps-the-complete-developers-guide/>> accessed 15 January 2024.

<sup>67</sup> Uma Technology, 'Geofencing: What It Is and How It Works' (Uma Technology) <https://umatechnology.org/geofencing-what-it-is-and-how-it-works/> accessed 10 January 2024.

and processing. It enshrines principles such as purpose limitation, data minimization, and proportionality—pillars that hold significant relevance when digital surveillance measures are employed. For instance, GPS tracking involves continuous location monitoring, often implemented without clear consent or transparent mechanisms. This clashes with the DPDP Act's emphasis on protecting individuals' personal data and raises the spectre of misuse, overreach, and erosion of privacy.

The intersection of privacy and surveillance is not new to Indian jurisprudence. As discussed in the previous section, in *PUCL v Union of India*<sup>68</sup>, the Supreme Court laid down essential safeguards against state surveillance in telephone tapping, emphasising that any such intrusion must be backed by procedural fairness and limited to legitimate purposes. Noting that telecom providers have a public duty, the Apex Court in *Amar Singh*<sup>69</sup> emphasized vigilance against fake requests. The Court ruled that while telecom service providers must promptly act on interception requests from government agencies, they are equally obligated to verify the authenticity of such requests. It reiterated that phone interception, an intrusion on the fundamental right to privacy, is permissible only in public interest through genuine, official requests following established legal procedures. The provider's failure to verify a suspicious request amounted to a breach of its public duty, highlighting the need for stricter compliance and accountability

---

<sup>68</sup> (1997) 1 SCC 301.

<sup>69</sup> *Amar Singh v Union of India* (2011) 7 SCC 69.



in such matters. Similarly, in the *KS Puttaswamy* judgment,<sup>70</sup> the court read the principles of necessity and proportionality non-negotiable in any form of state action.

While the *277th Law Commission Report (2018)*<sup>71</sup> addressed bail reforms, it overlooked the implications of digital surveillance. However, the *Justice Srikrishna Committee Report (2018)*,<sup>72</sup> which informed the DPDP Act, explicitly highlighted privacy as a cornerstone of data governance. Applying these insights to bail jurisprudence necessitates rethinking surveillance conditions to ensure they do not disproportionately infringe on individual freedoms. Simultaneously, the Parliamentary Review Panel (Report No. 247)<sup>73</sup> endorsed<sup>74</sup> the use of surveillance measures for undertrials, subject to their consent. In May 2023, the Home Ministry circulated the *Model Prisons and Correctional Services Act, 2023*<sup>75</sup> to all States and Union Territories to

---

<sup>70</sup> *Justice K.S. Puttaswamy (Retd.) and Anr. v. Union of India and Ors.* (2017) 10 SCC 1.

<sup>71</sup> Law Commission of India, Report No. 277: Wrongful Prosecution (Miscarriage of Justice): Legal Remedies (August 2018) <<https://cdnbbsr.s3waas.gov.in/s3ca0daec69b5adc880fb464895726dbdf/uploads/2022/08/2022081613.pdf>> accessed on 3 December 2023.

<sup>72</sup> Justice Srikrishna Committee, Report of the Committee of Experts on Data Protection (2018) <<https://www.meity.gov.in>> accessed on 25 January 2024.

<sup>73</sup> Parliamentary Review Panel, Report No. 247 (Parliament of India, [2023]) <[https://sansad.in/getFile/rsnew/Committee\\_site/Committee\\_File/ReportFile/15/188/247\\_2023\\_11\\_16.pdf?source=rajyasabha](https://sansad.in/getFile/rsnew/Committee_site/Committee_File/ReportFile/15/188/247_2023_11_16.pdf?source=rajyasabha)> accessed on 5 January 2024.

<sup>74</sup> The Hindu, 'Parliamentary Panel Recommends GPS Trackers to Reduce Overcrowding in Prisons' (The Hindu, 2025) <<https://www.thehindu.com/news/national/parliamentary-panel-recommends-gps-trackers-to-reduce-overcrowding-in-prisons/article67331749.ece>> accessed on 5 January 2025.

<sup>75</sup> Ministry of Home Affairs, Government of India, 'Advisory on Adoption of Model Prisons and Correctional Services Act, 2023 by States and Union Territories' (10

serve as a guiding document for the States for implementation of proposed reforms. For the first time, the said Act proposed using electronic tracking devices, allowing prisoners to be granted leave on the condition that they consent to wear these devices for monitoring their movements and activities. However, it is noteworthy that Prisons is a State subject in the Constitution and the future of such a move is uncertain, considering the federal setup of the Union.

As courts increasingly grapple with integrating digital tools into legal processes, they must take a nuanced approach. Surveillance as a bail condition must be scrutinized for its necessity and tailored to minimize intrusion. Clear safeguards are essential to prevent misuse, secure data, and ensure compliance with privacy laws like the DPDP Act. Only by striking this delicate balance can we ensure that justice is not pursued at the cost of fundamental rights.

## VII. ANCILLARY IMPLICATIONS

The State defends such measures by arguing that modern technology merely streamlines traditional practices, like regular reporting to investigating officers. Another justification is crime prevention, citing a rational nexus between the objective and the means adopted, even if it infringes on privacy rights. Additionally, it is argued that adopting such measures could alleviate prison overcrowding, as undertrials

---

November 2023) <  
[https://www.mha.gov.in/sites/default/files/advisory\\_10112023.pdf](https://www.mha.gov.in/sites/default/files/advisory_10112023.pdf) > accessed on 6  
January 2024.

make up the majority of inmates in Indian prisons.<sup>76</sup> By reducing the need for pretrial detention, these technologies can lessen the burden on infrastructure, addressing the chronic issue of overcrowding in the prison system. The use of technology for bail monitoring brings numerous challenges. Devices rely on batteries that may fail or discharge without fault of the accused, leading to unwarranted penalties. Optimal functionality requires clear skies and robust cellular networks, making these devices unreliable in remote or challenging terrains like the Himalayas or dense urban areas where factors such as weather, buildings, or vegetation disrupt signals. False alarms are frequent, exacerbated by inadequate training for law enforcement.<sup>77</sup>

The case of Kevin Jones<sup>78</sup> in the United States, wherein the failure of a monitoring device due to a dead battery led to his arrest, underscores systemic deficiencies in the implementation of electronic monitoring systems. This incident highlights critical concerns regarding inherent biases within such practices, which disproportionately burden individuals from lower socio-economic backgrounds, further perpetuating structural inequalities. In India, where undertrials often

---

<sup>76</sup> Aniruddha Ghosal, '76% Prisoners Are Undertrials, Ratio Is Highest in Delhi, J&K' (The Indian Express, 5 May 2022) <<https://indianexpress.com/article/india/76-percent-prisoners-are-undertrials-ratio-is-highest-in-delhi-jk-7900089/>> accessed 5 June 2024.

<sup>77</sup> Devansh Malhotra, 'Where Privacy Takes a Detour: Navigating The Controversy Of Live Location Sharing' (LiveLaw, 12 December 2023) <<https://www.livelaw.in/articles/where-privacy-takes-a-detour-navigating-the-controversy-of-live-location-sharing-244315>> accessed 9 June 2024.

<sup>78</sup> ACLU, 'Jailed for a Faulty Battery and Left to Catch COVID-19' (ACLU, 11 August 2020) <<https://www.aclu.org/news/criminal-law-reform/jailed-for-a-faulty-battery-and-left-to-catch-covid-19>> accessed 10 January 2025.

belong to vulnerable groups, similar issues could deepen inequalities, impacting livelihoods and increasing stigmatization. These conditions could deter bail applications, leaving undertrials trapped in detention or driven to criminal activities for survival due to lack of financial resources.<sup>79</sup>

Moreover, the question of cost responsibility arises. Imposing the cost of monitoring on undertrials could result in socio-economic crises, further marginalizing already disadvantaged individuals.<sup>80</sup> The lack of livelihood opportunities for undertrials adds another layer of complexity, making them susceptible to exploitation. Furthermore, the possibility of person changing the mobile handset or number is also unexplored, as it will be the but obvious loophole for the accused to escape the process of justice.

The denial of voting rights to undertrial prisoners in India, alongside the use of electronic surveillance for bail, raises concerns about justice and inclusion. Section 62(5) of the *Representation of the People Act, 1951* imposes a blanket ban on all prisoners, including undertrials

---

<sup>79</sup> Tim Cushing, 'Prisons Replace Ankle Bracelets with Expensive Smartphone App That Doesn't Work' (Techdirt, 1 May 2020) <<https://www.techdirt.com/2020/05/01/prisons-replace-ankle-bracelets-with-expensive-smartphone-app-that-doesnt-work/>> accessed 5 January 2024.

<sup>80</sup> American Civil Liberties Union, *Rethinking Electronic Monitoring: A Harm Reduction Guide* (September 2022) <<https://www.aclu.org/wp-content/uploads/legal-documents/2022-09-22-electronicmonitoring.pdf>> accessed 5 February 2024.

(whether civil or criminal), from voting, ignoring their presumption of innocence.<sup>81</sup>

Electronic surveillance tools like GPS tracking allow undertrials to remain in society under strict monitoring, yet they are excluded from participating in democracy. This dual treatment—monitoring for compliance while denying fundamental rights—contradicts the principles of justice and universal suffrage enshrined in the Constitution.<sup>82</sup>

A balanced approach is essential to align bail practices with constitutionally enshrined democratic values, safeguarding voting rights for undertrials under surveillance, promoting reintegration, and ensuring technology supports public safety while protecting rights and dignity within the criminal justice system.

## VIII. INTERNATIONAL OBLIGATIONS AND PERSPECTIVE

The presumption of innocence, underlined in Article 11(1) of the Universal Declaration of Human Rights<sup>83</sup> (UDHR) and Article 14(2)

---

<sup>81</sup> LiveLaw, 'Voting Rights, Undertrial Prisoners: Black Robes Legal' (LiveLaw, 30 November 2021) <<https://www.livelaw.in/law-firms/law-firm-articles/-voting-rights-undertrial-prisoners-black-robles-legal-183859>> accessed 20 January 2024.

<sup>82</sup> The South First, 'Negation of Voting Rights for Undertrial Prisoners: Unjust Exclusion' (The South First, 22 July 2022) <<https://thesouthfirst.com/opinion/negation-of-voting-rights-for-undertrial-prisoners-unjust-exclusion/>> accessed 10 January 2024.

<sup>83</sup> Universal Declaration of Human Rights, art 11(1).

of the International Covenant on Civil and Political Rights (ICCPR)<sup>84</sup>, guarantees that individuals accused of offences are deemed innocent until proven guilty. Article 66 of the Rome Statute<sup>85</sup> reinforces this principle, emphasizing that even in cases involving grave crimes, the burden of proof lies entirely with the prosecution. Article 8 of the European Convention of Human Rights<sup>86</sup> also emphasizes on the principle of proportionality together with the need for a justification for the state interference into privacy.

In the United Kingdom, the statutory framework governing electronic monitoring as a bail condition is set out under Section 3 of the Bail Act<sup>87</sup>. This provision empowers the courts to impose electronic monitoring (“EM”) only when it is evident that, without such monitoring, bail would not be granted. Furthermore, EM is generally restricted to individuals over the age of 18, displaying the intrusive nature of this measure and its impact on individual liberty as acknowledged by different courts worldwide. By ensuring that EM is used only in cases where less restrictive measures are insufficient the UK framework upholds the principle of proportionality keeping in mind that the end sought to achieve is bail and not open air incarceration.

---

<sup>84</sup> International Covenant on Civil and Political Rights, art 14(2).

<sup>85</sup> Rome Statute of the International Criminal Court, art 66.

<sup>86</sup> European Convention on Human Rights, art 8.

<sup>87</sup> Bail Act 1976, s 3.

The United Kingdom and New Zealand provide examples of nuanced approaches to the use of EM by employing electronic monitoring devices (“EMDs”) as a condition of bail, and serve as an example for India to follow. The idea that is weaved into both the laws is that EM should be applied sparingly, with a clear demonstration of necessity and proportionality.

Similarly, New Zealand’s legislative framework reflects a cautious approach, aligning with the principles of necessity and proportionality. Section 30A of The Bail Act 2000<sup>88</sup>, specifies that EM bail can be granted only when less restrictive measures are inadequate to ensure the accused’s attendance at trial or to prevent interference with witnesses or re-offending. Courts in New Zealand are required to assess whether the imposition of EM aligns with the least restrictive means principle, balancing the rights of the accused with the safety of the entire community.

Malaysia offers a unique take on the EMDs. The Malaysian Legal system offers a bifurcation entailing two types of laws: - preventive and ordinary laws. The use of EMDs is majorly seen in preventive laws namely the Prevention of Crime Act 1959,<sup>89</sup> Security Offences (Special Measures) Act 2012,<sup>90</sup> Prevention of Terrorism Act, 2015 etc.<sup>91</sup> GPS trackers and anklets are used in the USA to track the offenders on

---

<sup>88</sup> Bail Act 2000, s 30A.

<sup>89</sup> Prevention of Crime Act 1959.

<sup>90</sup> Security Offences (Special Measures) Act 2012 (Malaysia).

<sup>91</sup> Prevention of Terrorism Act 2015 (Malaysia).

probation, undertrial and on parole. According to a report by Per Researcher's trust, the number of accused and convicted criminal offenders monitored with electronic tracking devices in the US increased 140 percent between 2005 and 2015, from approximately 53,000 to more than 125,000.<sup>92</sup>

The 21st Law Commission of India has consistently advocated for the restrained use of EM, recommending its application only in cases involving serious offenses, particularly where the accused has a prior conviction for similar crimes.<sup>93</sup> The Commission has highlighted the risk of overreliance on EM, cautioning that its excessive or punitive use undermines the presumption of innocence and the rehabilitative aims of bail.

## IX. BALANCING THE TWO MODELS AND SUGGESTIONS

A nuanced approach is needed to reconcile the competing demands of these models. Digital surveillance must be implemented in a way that aligns with the **Crime Control Model's** focus on public safety and efficiency while respecting the **Due Process Model's** commitment to fairness and equity.

---

<sup>92</sup> Pew Charitable Trusts, 'Use of Electronic Offender Tracking Devices Expands Sharply' (September 2016) <<https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2016/09/use-of-electronic-offender-tracking-devices-expands-sharply>> accessed on 7 January 2024.

<sup>93</sup> 21st Law Commission of India, *Report on the Use of Electronic Monitoring in India* (2018) Report No. 264.



Gouldin's call for more precise risk assessment tools is a step in this direction. By distinguishing between true flight risks and other forms of non-appearance, judges can impose tailored conditions that reflect the actual risks posed by each individual. Similarly, Wiseman's advocacy for proportionality under the Eighth Amendment of the US Constitution<sup>94</sup> ensures that monitoring measures do not become excessive or punitive.

Digital surveillance in bail matters exemplifies the tension between protecting society and preserving individual freedoms. Herbert Packer's models remind us that a balanced justice system must achieve both goals. The implementation of clear guidelines and standard operating procedures (SOPs) for such measures post-consent as is the case in employing certain invasive investigation techniques such as narco-analysis<sup>95</sup> could significantly enhance their efficiency and reliability. By integrating the practices of risk assessments, proportional safeguards, and equitable practices, we can ensure that digital surveillance serves as a tool for justice rather than a source of oppression. Conclusively, this balance can help build a criminal justice system that is both effective and fair, upholding the principles of liberty and safety for all.

The use of digital surveillance as a condition for bail highlights a critical intersection between advancing technology and the

---

<sup>94</sup> US Const. amend. VIII.

<sup>95</sup> *Selvi v State of Karnataka* (2010) 7 SCC 263.

preservation of constitutional rights. While tools like GPS tracking and geofencing promise efficiency in monitoring accused individuals, they risk infringing on privacy, dignity, and the doctrine of presumption of innocence if implemented without sufficient safeguards.

Herbert Packer's Crime Control and Due Process models underscore the dual objectives of ensuring public safety and upholding individual freedoms. India's judicial framework has recognized the primacy of proportionality and fairness, as evident in cases like *KS Puttaswamy v. Union of India*. However, inconsistencies in judicial interpretation such as conflicting stances on location-sharing requirements highlight the urgent need for a unified approach. The court should settle the dust around the controversy by referring the matter to a larger bench to pronounce a conclusive judgement while balancing the rights of the individual and state interest to uphold law and order in the society.

The *Digital Personal Data Protection Act, 2023*, while advancing privacy protections, does not adequately address the nuances of surveillance in bail matters. Similarly, the *Model Prisons and Correctional Services Act, 2023* and international frameworks, like those in the UK and New Zealand, stress the necessity and proportionality of such measures but lack comprehensive implementation strategies.

To align technological progress with constitutional values such as individual rights, privacy, due process, and the presumption of innocence, a robust regulatory framework is vital. Courts should

establish clear, fair guidelines that prioritize minimal intrusion and address socio-economic biases, ensuring surveillance serves justice rather than perpetuates inequality. By incorporating proportional safeguards, judicial oversight, and rigorous risk assessments, digital surveillance can enhance justice delivery without compromising fundamental rights. This balanced approach can reshape bail jurisprudence, fostering an efficient and equitable criminal justice system rooted in accountability and fairness.