Applying Technology Ethically in Electronic Monitoring: Reflections on Experiences in Thailand

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Abstract

Electronic monitoring has been introduced in the criminal justice system of Thailand in both pre-trial and post-conviction stages. However, both schemes suffer from philosophical ambiguity. It seems to be the case that the glamor of technology has outshone the necessity of ethical foundations. This under-attention to the fundamentals has exposed the programs to ethical concerns and practical shortcomings. This article will argue for the redirection of attention to ethical considerations at the heart of both initiatives. It will take the position that the exploitation of penal technology should be done with caution and awareness of its boundaries and impacts. Most importantly, the implementation should be underpinned by unequivocal penal principles for only under such clarity can ethics and efficacy coincide in the same operation.

Keywords: Electronic monitoring, ethics, bail, probation

Introduction

Amidst the digital-age excitement about the seemingly infinite potential of technology, electronic monitoring (EM) has been introduced in Thailand in all stages of criminal justice (pre-trial, post-conviction and post-release from prison) as a putative solution to several penal crises. As a form of penal location monitoring, EM is capable of many great possibilities. Nevertheless, applying technology should not be an end in itself, but rather the means to achieve certain social goods. The ways in which it is envisaged as policy and applied in practice are inevitably influenced by human values selectable across a wide range of socio-political – and penal – ideals (See Ibarra, Gur, & Erez, 2014; Nellis, 2009, 2016). Moreover, as a very powerful surveillance tool, it is ethically imperative that the operation of EM, like any form of penal intervention, is underpinned by well-thought-out philosophical choices (Graham & McIvor, 2015). Without substantive clarity about the purposes, forms and intended outcomes of EM, it will fail to achieve desirable social goods and instead create more problems.

Unfortunately, in Thailand, the perceived utility of EM has been clouded by its technical attractiveness. Overhyping the technology has obfuscated the primacy of ethical considerations regarding how best to deal with offenders and defendants at different points in the criminal justice process. This article argues that technological ideals and imperatives should not in themselves drive the development of EM, whatever new possibilities they offer, but that they should be subordinated to established ethical principles and the philosophical

objectives of criminal justice. Just because modern digital technology makes location monitoring of various sorts possible, and indeed easy, does not mean that it must be adopted, or that it can, by itself, solve hitherto intractable penal problems.

The paper begins with a general description and evolution of EM technology, followed by comment on existing ethical frameworks for administering it. It will then provide an overview of Thai EM initiatives before offering critiques of them. For the sake of brevity, it will only discuss the pre-trial and post-conviction EM programs and omit the less well-known program for post-prison release: the problems with Thai use of EM are apparent from these alone. It will then end with recommendations for a better ethical operation of both EM schemes.

Empirical research and data about EM use in Thailand is limited, but not lacking completely. Remedying this will be one of the paper's recommendations. However, where references cannot be supported by empirical facts, 'judicial anecdotes' will be used to illustrate practitioners' perspectives. These anecdotes derive firstly from the author's own observation as a trial court judge in Thailand and secondly from informal conversations with her fellow judges there. The paper lacks direct insight from the Thai probation agency, but as judges play a major role in ordering and tailoring the conditions of post-conviction EM, the focus on judicial perspectives hopefully compensates for this limitation.

EM as a Penal Technology

EM, according to Nellis (2013a), is:

> [A] generic term for several remote location-checking technologies which each make possible the micro-management of offenders' (or pre-trial detainees') locations and schedules at various points in the criminal justice process – pre-trial, as a community sanction or alternative to prison, or as a form of post-release supervision (p. 194).

Offender monitoring can be achieved using short wave radio frequency (RF) technology to enforce their presence at designated locations for specified periods, the Global Positioning System (GPS) satellite for the real-time tracking of their mobility, and biometric voice or facial verification on smartphones to confirm their presence at a series of locations. The essence of EM as a penal measure remains the spatial and temporal restriction of presence and/or mobility for a specified period, although remote alcohol monitoring checks prohibited behavior directly, rather than an offenders' locations (Nellis, 2013a, pp. 194-195). Ostensibly, it enhances the ability of judicial and penal authorities to control offenders, inducing compliance through fear of real-time violation detection and subsequent aggravated penalties. The versatility of EM technology enables it to be used in varying intensities (made more or less restrictive) across all stages of the criminal justice system and, crucially, used either as a standalone measure or in combination with other supervisory conditions with diverse types of individuals (Nellis, 2013b).

EM was first applied as an offender management tool in the USA during the 1980s, where it was politically touted as an economical solution to over-incarceration. Techno-utopian hopes incentivized private entrepreneurs to aggressively commercialize their equipment as the 'technological panacea' and greatly expanded the use of EM. However, these early EM schemes were inadequately designed, poorly implemented, and initially hard to evaluate in terms of effectiveness. Overconfidence in technological location monitoring as something self-evidently superior to other community alternatives – because it is 'modern' and aligned with the techno-scientfic ethos of the age – regardless of the viability and different penal purposes of these other measures, distorted debate about the character and purpose of offender management (Lilly & Nellis, 2013). In a more specific context, this will be shown to have happened in Thailand too.

The influence of commercial corporations in steering the operation of EM is also present in England and Wales, where a neo-liberal political climate pushed the evolution of EM towards privatization and punitiveness. Anglo-Welsh EM is largely used as a standalone penalty administered by government-contracted companies rather than probation services. The scheme is almost a pure form of surveillance and control. Its punitive approach coupled with the often low-tariff use has instigated criticisms and concerns (Mair & Nellis, 2013; Nellis & Bungerfeldt, 2013). The model adopted in Scotland is more moderate, with EM as a higher-tariff community sentence and post-release measure. It is still privatized, but more tightly regulated than in England and Wales, and while it remains formally unintegrated with criminal justice social work agencies (McIvor & Graham, 2016) there is now greater government commitment to aligning it with rehabilitation and reintegration.

Sweden, Norway and the Netherlands have always subordinated EM to probation's rehabilitative mission. Sweden, in particular, piloted EM at about the same time as England and Wales but its decision to house EM within probation was contrary to its Anglo-Saxon counterpart (Nellis & Bungerfeldt, 2013). The primacy of rehabilitation and the leading role of probation staff are the prominent features of the integrative scheme, resulting in the individualized and arguably more humane treatment of offenders. Sweden and Norway deliberately position EM as an executing method of short-term imprisonment and authorize probation services in deciding whether to use EM in eligible cases, thereby placing it in the administrative – rather than judicial – remit. As a result, both countries manage to mitigate net-widening and are modestly successful in reducing prison populations (Wennerberg, 2013; Øster & Rokkan, 2018).

Criminal justice in the twenty first century can be framed in terms of three conceptually distinct but sometimes overlapping penal credos: punitive-repressive, managerial-surveillant and humanistic-rehabilitative, each with different understandings of justice and desired penal outcomes (Nellis, 2005, p. 178). In any jurisdiction one credo may officially dominate but there will invariably be interest groups which champion the others; in any given criminal justice system examples of all three credos may coexist The punitive-repressive credo generally

favors harsh punishment and strict limits to rehabilitation; it wants community alternatives to be tough and prison-like, but has often dismissed EM as insufficiently punitive. The managerial-surveillant credo emphasizes efficient, cost-effective control and risk management over punishment (without precluding it), seeing location monitoring as a vital contribution to this, although without precluding individualized supervision (Ibarra et al., 2014). The 'othering', objectifying attitude of both these approaches suppresses the person-centered and concerns for offenders. Taken to their limits, either or both encourage the onerous and intrusive use of EM, whose ultimate form may be an undesirable 'virtual prison' in the community.

The inclusive, person-centered emphasis in the humanistic-rehabilitative approach prioritizes help and support for changing behaviour, improving offenders' self-esteem and equipping them with social skills to aid reintegration. This emphasis has never precluded elements of control and the protection of victims, so low intensity EM regimes can in principle be integrated within it, in order to 'add value' to the goal of rehabilitation (Boone, van der Kooij, & Rap, 2017). In this context, neither presence nor mobility monitoring are equated with imprisonment but seen rather as 'life structuring tools' to support positive routines that aid long-term desistance.

Worldwide, the scale, diversity and variable intensity of EM regimes are the products of clashing political interests, different penal credos, commercial pressures and unreflective pragmatism. Ideally, in any jurisdiction, value-based decisions would determine the selection of technology types and the legal and policy framework in which they are to be operationalized, but this does not necessarily happen in practice. Absent guiding principles, underpinning values and clarity about 'what works' (and what doesn't), there is a danger that the allure of modern, technological location monitoring will make existing community measures seem unsatisfactory or even obsolete, and fail to solve penal problems that need more than a 'technical fix'. Displacing measures that already work and 'net-widening' – imposing EM on low-risk and cooperative offenders who would not otherwise have been at risk of imprisonment – are two of the dangers.

Setting EM in an Ethical Framework

EM is significantly different in kind from other community penalties. The remote regulation and enforcement of offenders' spatial and temporal schedules in real-time offers a more powerful form of control than traditional non-custodial methods. It could easily be used oppressively. In order to steer EM's course towards positive penal ends while constraining negative possibilities a clear ethical framework is required, in addition to unambiguous and feasible objectives and policies. The Council of Europe's Recommendation on EM in 2014[1], based on European understandings of human rights, offers good guidance on such a

[1] Recommendation CM/Rec(2014)4 of the Committee of Ministers to member States on electronic monitoring (Adopted by the Committee of Ministers on 19 February 2014 at the 1192nd meeting of the Ministers' Deputies).

framework, as well as the preferred objectives of EM in both pre-trial and post-conviction contexts.

The Recommendation emphasizes the importance of proportionality and the parsimonious use of the technology in several rules (Rules 3-6, 11, 16, 19-20, 25). It advises against any forms of discrimination (Rule 7). For a pre-trial use of EM, it links proportionality to a careful pre-trial risk assessment (Rule 16) and, for the post-conviction context, it seemingly implies the humanistic-rehabilitative credo as the preferred context for applying EM. This could be inferred from its suggestion of combining professional and supportive interventions with EM for long-term desistance (Rule 8) and caution against the 'negative effects of isolation' from imposing intensive EM conditions akin to a virtual prison (Rule 21). A special section is dedicated to data protection (Section VI, Rules 29-32) to highlight the fact that EM is indeed a surveillance tool. The Recommendation also stresses the need for rigorous evaluation of EM schemes to assist in informed decisions and to build knowledge of 'best practice' (Rule 40).

All these rules, derived from and applicable to European EM schemes, could be adapted for use in other jurisdictions. Cultural and political differences notwithstanding, they will inform the ethical framework used later in this article for critiquing Thai practice with EM. It is therefore appropriate to offer here an explanation of support to these rules before moving on to the next section.

The principles of proportionality and parsimony have been almost incontrovertibly ethical restrictions of any penal interventions. Respect for human dignity lies at the foundations and essentially bans punishment from being an instrument of torture and dehumanization. Morality aside, adherence to these two tenets also yields utilitarian benefits. Properly matching necessity with intensity enables a more cost-effective administration of justice. More importantly, proportionate and least restrictive intervention encourages more compliance which is key to the success of every participant-dependent measure, EM included. By strengthening the perceived image of fairness and legitimacy, these two norms can drive voluntary conformity despite imposing burdens on offenders (Hucklesby, 2009, p. 254; Tyler, 2006). On this account, it is evident that both moral and instrumental reasons support a serious consideration of these principles in both pre-trial and post-conviction EM schemes.

Risk assessment in a pre-trial stage is connected to the concept of pre-trial equity, which involves managing the uncertainties of absconding and public danger while ensuring the protection of the accused's rights. Location monitoring of variable intensity seems to have obvious merit for preventing absconding or interfering with victims, but is only one means of reducing such risks. A careful risk assessment would enable EM to optimally address the danger posed by the accused and may encourage more releases of high-risk individuals under the auspice of EM's surveillance capacities.

The humanistic-rehabilitative approach arguably contains the strongest safeguards against dehumanizing punishment, and 'need' as well as 'risk' can be addressed within it. Its goal of

long-term desistance renders a desirable crime control utility as well as a short-term benefit from offenders' compliance. Its aim of enabling long-lasting positive changes to behavior and the prospect of reintegration offers a clear social good to the supervised offender, which in turn is more likely to elicit voluntary cooperation due to his or her perception of legitimacy and (possibly) feelings of gratitude (Hucklesby, 2009, p. 267; See also Kerr, Roberts, Davies, & Pullertis, 2019, pp. 37-38).

However, to ensure that EM can deliver its intended results in both pre-trial and post-conviction stages, a full understanding of both EM's capabilities and limitations, and the capacity of offenders and accused persons to comply are paramount considerations. EM should be acknowledged as a participant-dependent measure. It is not incapacitative, no matter how intense the regime: offenders are still free to commit crimes or remove ankle bracelets and abscond (Hucklesby, 2009; Nellis, 2016). Therefore, the choice of technology and the tailoring of conditions should reflect this limit and an equal, if not more, emphasis should be rendered on the human infrastructure of the scheme – support services which can help and motivate an offender or defendant to comply.

Data protection is an extra ethical issue of EM due to its capacity to generate personally sensitive information. Privacy is a major ethical concern in its own right and offenders do not forego all rights to it: the ethical application of EM should take this matter seriously. The same argument applies to evaluation. Assessment of a publicly-funded program involves another ethical concern regarding the effective spending of tax-payers' money. Therefore, testing the supposed effectiveness and striving to improve it via rigorous evaluation is also indispensable.

EM Schemes in the Thai Criminal Justice System

The Thai criminal justice is a mixture of a civil-law codification and a common-law adversarial procedure. This combination is the result of the legal modernization in response to the threat of western colonization and extraterritoriality forced upon Thailand during the late nineteenth and early twentieth century. However, adversarial-styled passive judging in the traditionally hierarchical society tends to disadvantage the accused. Moreover, an incoherent organizational structure has created an ethos where each criminal justice agency focuses on solving its own bureaucratic challenges rather than cooperating to accomplish the overarching penal objectives. It also implicitly endorses interagency competition (See Kittayarak, 2003, pp.108, 110).

This atmosphere facilitates the domination of penal managerialism, where primacy is given to administrative efficiency and internal control (See Bottoms, 1995, pp. 24-26). A long list of the Judiciary's quantifiable performance indicators (with emphasis on the speed of trial and case turnover)[2] is a clear example. The focus on quantifiable outcomes and the hierarchical 'quality control' judicial supervision has contributed to prevalent risk-aversion in decision-making,

[2] For more information, see The Judiciary's Annual Performance Evaluation Report at https://oppb.coj.go.th/th/content/category/articles/id/8433/cid/8443 (accessed 16 August 2019) (in Thai).

indifference towards inequitable practice and overly harsh sentencing. Consequently, wealth-based inequality predominates at the pre-trial stage, while prison is overcrowded with disappointing recidivism rates (See Likasitwatanakul, 2019). Thailand's incarceration rate is also ranked in the top ten on the global scale and its sub-standard prison conditions are internationally notorious (International Federation for Human Rights, 2017).

Alarmed by this growth of prison population, 'intermediate punishment' has been suggested as the potential solution. Nevertheless, despite the spectrum of intermediate sanctions, EM alone seems to have attracted enthusiasm from policy makers (See Poonyarith, Terdudomtham, & Siriwato, 2016, p.30). The Department of Probation (DOP) was the most eager to test the technology. It ran the series of post-conviction pilots from 2014 and the most recent one was launched on 1 January 2019. Operating on a hybrid (RF and GPS-enabled) technology, the latest pilot targeted offenders whose prison sentences were suspended and on whom EM was imposed as a probation condition. EM in this program was primarily deemed an alternative to imprisonment (Judiciary of Thailand, 2017a). However, despite the scheduled ending on 3 September 2020, it was abruptly canceled in September 2019 because of a scandal over the procurement of unreliable wrist-bracelets (Laohong, 2019).

Meanwhile, seeking to reduce the inequality of monetary bail, the Judiciary of Thailand has used GPS EM in the pre-trial phase since 1 March 2018. The aim is to equalize the bail system, predominantly wealth-based, by offering EM as an alternative to monetary bail, which hitherto has disadvantaged poorer defendants. The program has proceeded with remarkable speed and nearly 6,300 devices have already been deployed, mostly to accused people incapable of posting bail (Yampracha, 2018).

Both programs share the similarity in the leading role of the DOP and the Judiciary respectively. Unlike some western counterparts, contracted companies merely supply the equipment and monitoring system and have only a limited part in program administration. State agencies alone – the DOP and the Judiciary – have become major champions of the technology and ardently encourage its use.

In both programs the inadequacy of ethical considerations is quite obvious. In terms of applied ethics, both programs seem to be irrational from the philosophical perspectives. The dearth of profound ethical underpinnings also echoes in the seeming lack of interest in evidence and the gathering of it. This indifference perpetuates the loop of irrationality where proportionality and effectiveness of EM are inadequately addressed.

Such inadequacy is manifested in the EM bail scheme where the technology is used as an optional form of bail bond without any risk assessment. Post-conviction, EM seems to have functioned as additional control over probationers without apparent integration with a master rehabilitative plan. In neither case is the intrinsic penal worth of EM justified: it is simply assumed that exerting control via location monitoring is a technically desirable thing to do. This is the consequence of the managerial-surveillant credo that favors administrative

efficiency over ethical foundations. Thai EM literature reflects this environment by highlighting technical benefits at the expense of ethics (See, e.g., Department of Probation, 2015; Poonyarith et al., 2016) – although the same neglect of ethics occurs in several aspects of the Thai criminal justice. In the following sections, the failure of the Judiciary's EM bail and the DOP's EM probation to live up to their positive potential will be described.

The Judiciary's EM Bail Program

Bail in Thailand has been heavily criticized for discriminating against the poor due to the common requirement of monetary security. This money-based routine is generally deemed to deter breaches of release conditions through the pecuniary incentive. Despite its manifestly adverse effect on poorer defendants, and the unfairness of this, its entrenchment for over half a century is due to three converging factors: the lack of offender-centric information, the tight timeframe of decision-making and the cultural mentality of maintaining a corruption-free image. Restricted by these conditions, the deterrent appeal of monetary bail offers the seemingly optimal solution to judges struggling to balance conflicting pre-trial interests while securing their reputation for honesty (Tantikul, 2014).

Concerns for consistency and observable impartiality have contributed to the nationwide adoption of the centralized bail schedule, which determines the size of bail solely on the offense charged and leaves no room for wealth-based adjustment. This rigidity has resulted in differential treatment based on financial ability, hence the satire 'the prison is the place only for the poor' (Tantikul, 2014). This money-based inequality seems to cause over-population of pre-trial detainees. Since the bail process must be initiated by the accused's motion, the dominance of monetary bail may discourage the impoverished from filing it and may make them submissively accede to their poverty-based detention (Rabi Bhadanasak Institute, 2017).

Despite the lack of empirical studies, it is widely acknowledged that discrimination caused by monetary bail inflicts an unnecessarily harsh burden on the have-nots. Anecdotes abound of individuals and their families enduring the demands of a loan shark or making an emergency sale of their essential properties just in order to post bail. For those too poor to consider a loan shark an option, pre-trial detention is unavoidable. Again, absent concrete evidence, it is commonly speculated that pre-trial detainees suffer unduly from mental stress and are more likely to plead guilty despite their innocence (Tantikul, 2014).

A further downside of monetary bail is the generation of demands for bail bonding services. Operating in the shadows, bail bondsmen purportedly earn easy money by selectively bailing 'good-risk' clients for a 10-20 (or higher) percent non-refundable fee. To eliminate such exploitation, the Judiciary legitimizes the 'liberty insurance' issued by regulated insurance companies with cheaper 'premiums'. Another attempt is through the government's 'Justice Fund', one of whose missions is granting fund for bailing the poor. Managerial impediments aside, these programs still operate under the monetary-bail paradigm, which in itself

perpetuates inequality. Therefore, despite good intentions, these remedies are likely doomed to fail (Tantikul, 2014).

In the quest for equal pre-trial justice, GPS EM is ostensibly an attractive solution. The achievement of deterrence by round-the-clock location and mobility tracking is deemed to be an equal – if not better – alternative to bail bonds. Such surveillance technology is expected to lessen reliance on monetary securities and ameliorate pre-trial equality by allowing more indigent accused to be released while awaiting their trials (Yampracha, 2018).

The interpretation of pre-trial equality as 'equal opportunity of pre-trial release' shifts the focus to the number of people released on EM, rather than the process and conditions by which it is imposed. Unsurprisingly, the Judiciary's EM evaluation report demonstrates the improved state of equality by quantifiable indicators namely the number of devices deployed, the amount of saved custodial budget, and wearers' satisfaction regarding technical aspects (Judiciary of Thailand, 2018).

Increased pre-trial release has spared prison spaces and saved costs. Whether or not this constitutes improved equality is doubtful. If equality means non-discriminatory treatment, then how EM is applied is significantly relevant. The recent bail regulation of the Supreme Court President[3] affirms the positioning of EM as an optional form of bail, thus permitting the accused a 'choice' between being released on bail bonds or on EM. Discrepancies from this practice may be defensible if the choice is genuinely voluntary. Nevertheless, this 'free choice' argument is moot because the choice available to those unable to post bail is rather between EM and pre-trial detention. If EM is the only option of (partial) freedom, because sureties are unaffordable, the pains of location monitoring are more likely to be disproportionately applied to the poor.

Such disproportionality could be justifiable if the impacts and experiences of each mode of release were essentially similar, but this is not known, as the lived experiences of Thai people on EM bail have rarely been studied. Anecdotally, it may be contended that EM is not necessarily more burdensome than monetary bail. Besides the occasional ban from overseas travelling, those released on any form of bail in Thailand enjoy a high degree of formal freedom, whatever material hardships the sureties entail. Those released on EM are often not bound by any mobility restriction. They are tracked in real-time wherever they go, but usually without further restraint. Occasionally, the entire province where the accused resides is designated an inclusionary zone. Given this large territory of free movement, the condition appears lenient.

Nevertheless, the visibility of the ankle bracelet and the system's surveillant capacity arguably impose distinct pains on the tagged individuals. Preliminary evidence can be gleaned from

[3] The Regulation of the Supreme Court President on Criteria, Process and Conditions regarding Bail or Bail Security (No.3) 2019 (B.E.2562).

interviews in the Judiciary's evaluation report wherein respondents reveal discomfort and bruises from wearing the bracelets and the inconvenience of frequently charging the battery. The report also records observational remarks on the wearers' shame and concerns about work disruptions (Judiciary of Thailand, 2018, pp. 105, 107-110). These comments resonate with the bracelet effects, shaming effects and job-related problems found in international research about the pains of EM (Gainey & Payne, 2000; Payne & Gainey, 1998; Vanhaelemeesch, Vander Beken, & Vandevelde, 2013). One accused's comment on surveillance-based deterrence in the Judiciary's evaluation report (Judiciary of Thailand, 2018, p. 104) mirrors the awareness of being watched documented in western studies (Nellis, 2009, p. 52). Although anxiety and paranoia about being monitored is not yet reported in Thai research, the evidence of such impacts on GPS EM offenders in the recent English pilot (Kerr et al., 2019, p. 46) flags up this possibility in the Thai GPS EM context.

Such negative sensibilities are rare for those released on bail bonds. Since the measure functions as a pecuniary incentive, it is normally devoid of monitoring conditions. In the rare case of accompanying supervision, the human oversight is less onerous to the accused than constant technological surveillance and the nagging worry of a dead battery, as well as invisible to the public and non-stigmatizing. Monetary bail may cause unique pains but judicial anecdotes, at least, seem to corroborate that being tagged and tracked is experienced as more troublesome than posting bail[4].

Most worryingly, in terms of fairness, rather than supplanting the use of monetary bail, EM is often imposed *in addition* to it. Largely restricted by the law[5] and habituated to money-based conventions, judges rarely grant unsecured bail or a partly secured bond. This reluctance to relinquish monetary conditions results in a combination of monetary bail and EM. A recent judicial regulation on bail[6] partly recognizes the unfairness of this, and recommends taking a partial security at a certain percentage of the entire bail value (i.e. not exceeding 20% or 50% or not less than 50% dependent on the severity of the charge) when EM is imposed. Judges remain wary of a lessened disincentive to absconding (Judiciary of Thailand, 2018, p.41) but since the bail value is determined by the rigid centralized schedule, even 20 percent of income-insensitive bail is still impossible for many to afford.

Moreover, this EM-monetary bail combination often exists absent any risk assessment and considerations regarding the accused's ability of compliance. Ideally, pre-trial risk should determine the in/out result and the intensity of bail and getting 'out' should not be hindered by the feasibility of bail conditions. Imposing similar bail requirements on people of matching

[4] The commonly heard anecdotes among judicial staff refer to numerous cases where those initially released on EM returned a few days later to post bail and ask to remove the bracelet. These stories reflect the general preference for monetary bail to EM among the accused because of the latter's greater intensity.

[5] Section 110 paragraph 1 of the Criminal Procedure Code mandates monetary bail when the charged offense is subject to the statutory maximum of over a certain term of imprisonment. The recent revision by the Amendment Act (No.34) effective in 2019 increases the threshold from over 5-year imprisonment to 10 years.

[6] See note 3.

risks but different ability of compliance will be unjust and substantively unequal (See Carlen, 1994; Ashworth & Player, 1998). On this ground, monetary conditions – if deemed appropriate at all – should be dependent on the scale of risk and the accused's level of income. Likewise, the use and intensity of EM should be dictated by the risk and feasibility. Matching pre-trial risks to the intensity of EM necessitates in-depth studies of the measure's lived experiences. Additionally, the system needs more resources in collecting and verifying information of the accused, from their risk factors to their capacities of completing bail requirements.

Nevertheless, the common practice disregards such ideal conditions and facilitates net-widening where EM is imposed more on people eligible for less restrictive conditions. Before EM bail was launched, the Judiciary had conducted a pilot on non-monetary bail in minor crimes, the compliance rate of which was 90.7 percent (Srithawatpong, 2018). Coincidentally but unsurprisingly, judges usually use EM in minor offences too - the compliance rate of which is roughly 97 percent (See Judiciary of Thailand, 2018, pp.24, 47). Therefore, arguably the population of the accused in both programs are largely comparable and implicate the probability that nearly 90 percent of the accused in non-serious offenses could be released on neither monetary bail nor EM. Further evidence is required but the likelihood of net-widening in the EM bail scheme is difficult to deny.

Disregarding proper risk assessment also impedes pre-trial decarceration by forestalling the release of 'false positive' detainees. Limited by information deficit, judges tend to be ultra risk-averse and often deny bail outright on severe accusations like substantial drug possession (See Judiciary of Thailand, 2018, pp.95, 100). Numerous alleged 'high-profile' drug dealers mingle in the overall drug-related remand figures (roughly 44,000 detainees or about 12 percent of the total remand population as of 1 December 2019)[7]. Among this population, a large number of individuals are probably 'false positives' – those incorrectly predicted to abscond and hence detained. With robust risk assessment in place, many of these detainees may be considered releasable and EM may provide judges with the needed confidence in letting them out, thereby genuinely decreasing pre-trial prison population. The satisfactory results of GPS EM pilots in England and Wales where EM was applied to high-risk population is a sign of feasibility (Mayor of London, 2018; Kerr et al., 2019). Regrettably, this decarceral potential has been missed by contemporary practice in Thailand.

Post-Conviction EM as a Probation Condition

Post-conviction EM has been promoted by Thai academics and practitioners as both a decarceration tool and a form of intermediate punishment to simultaneously combat the crisis of prison overpopulation and unsatisfactory recidivism rates (Department of Probation, 2015; Poonyarith et al., 2016; Siriwato & Poonyarith, 2017). Using EM in probation is authorized by Section 56 Paragraph 3(6) of the Criminal Code amended in 2016, which permits

[7] Department of Corrections' nationwide statistics of the prison population on any given dates. Retrieved from http://www.correct.go.th/rt103pdf/report_result.php?date=2019-12-01&report=drug (accessed 12 December 2019) (in Thai).

monitoring of compliance with movement restriction conditions. A series of pilots in collaboration with the Judiciary of Thailand affirmed EM-probation integration (Leelasawasdi, 2014; Judiciary of Thailand, 2017a).

Throughout the history of pilots, EM was ordered in diverse offenses namely drink driving, larceny and assault (Department of Probation, 2015, p.40). The duration of EM varied, ranging from a week to 6 months, but other conditions were mostly similar especially the normal curfew hours between 10 pm to 4 am and the total 24 hours of community services (Leelasawasdi, 2014, pp.15-17). Although still applicable to other offenses, the latest pilot specifically targeted drink driving in response to the chronic problem of drink-drive accidents. The program aimed for EM to be imposed on drink drivers having over 0.15 percent blood alcohol content with a normal condition of night-time curfew hours (from 10 pm to 4 am) for 15 days. Other orders included performing community service for 24 hours in a hospital's accident unit or as a caretaker of a bed-ridden patient, attendance in the training course on traffic regulations, and a quarterly report to a probation officer (First day of EM, 2019)

Despite being well-meaning, this program suffered several flaws. The most evident was the careless inspection of the wrist-worn bracelets, which proved easily removable (Laohong, 2019). Such imprudence was puzzling, given the DOP's previous experience with pilots. It may reflect both hasty DOP decision-making after a three-years of budget constraint (Yampracha, 2018) and competitiveness with the Judiciary whose EM bail program had had a head start. The DOP's techno-optimism has backfired and tarnished the technology's credibility with an already sceptical public. Confidence in EM's deterrent effect requires belief that wearable devices will accurately detect offenders' movements and induce their compliance (Hucklesby, 2009; Nellis, 2009).

Furthermore, the program was rather silent about 'best practice' or recommended actions – except in a drink driving case. Since there have been no clear and common understandings about how to use EM, practitioners – especially judges – struggled to find optimal approaches under minimal guidance.

Attempting to help fill this gap, on the judicial side, there are at least two separate recommendations from two separate regional administrative bodies – The Office of Chief Justice of Region One and the Office of Chief Justice of Region Five. Both documents differ in styles and substances. Region One's recommendation[8] (to be consulted by judges of courts in Thailand's central region) reads like an instruction, delineating the types of offenses eligible for EM probation, namely drink driving, dangerous driving, domestic violence, drug consumption, shoplifting - also included in the list is the sweeping yet ambiguous 'offenses

[8] The Recommendation of the Chief Justice of Region 1 on Applying Electronic Monitoring in the Probation of Defendants According to the Criminal Code Section 56(6), dated 1 April 2019 (B.E.2562).

deemed suitable by judges'. It provides the written format of the order and broad patterns of conditions, but offers no guidance on how discretion should be exercised.

In contrast, Region Five[9] offers a very rare ethical explanation in similar style to the Council of Europe's Recommendation[10]. Its lack of specific direction is compensated by a careful description of how the discretion should be applied. Unfortunately, this regional recommendation takes effect only in the northern part of Thailand. Regrettably, it was issued after the cancellation of the latest EM probation pilot and its impact is now intellectual rather than practical. Nevertheless, it is a welcome sign, however limited, that EM-related ethics has finally received some official attention.

The absence of a shared paradigm for EM probation increases judges' difficulties in deciding whether and how to use the measure. The hierarchical structure of supervision and traditions of strict uniformity tend to discourage judges from judicial creativity and tailor-made discretion (See Likasitwatanakul, 2019). Therefore, it is more likely that judges uncritically follow specific instructions like the pilot's recommendation for drink driving or the 'advice' of the Chief Justice of Region One. As a result, EM probation orders have tended to be routinized and offense-based. This non-individualized use of EM was contrary to the DOP's ethos of rehabilitation. Although EM seems to have some rehabilitative potential (Hucklesby, 2008, 2009), it is best used alongside a rehabilitation plan tailored to the needs and risks of each individual. EM without such individualization would be a crude form of control that could at best be expected to render only short-term compliance but not long-term desistance (Nellis, 2009).

This practical ambiguity hindered even the official objective of decarceration via intermediate punishment. Since the Thai Criminal Code is yet to openly embrace this goal, the only window to impose 'intermediate' sanctions is through probation conditions. However, Section 56 restricts probation to only first-timers or those having a minor history of imprisonment, thus excluding many non-dangerous but 'revolving-door' offenders. The remaining decarceration channel under the present law is through borderline cases of non-repeated offenders. Another opportunity is to use EM as a graduated sanction against breaches of non-EM conditions. Nevertheless, the pilot's silence about these possible methods was likely to leave them undeployed. EM probation was apparently targeted on offenders already eligible for traditional probation and back-door incarceration from breaches of probation conditions seemed to be unaffected. Decarceration opportunities were ostensibly missed and 'net-widening' was probably high.

The likelihood of net-widening hinted at the possibility of disproportionality. Apart from the absence of EM in borderline cases, the non-requirement of consent from offenders and co-

[9] The Recommendation of the Chief Justice of Region 5 on Applying Electronic Monitoring in the Probation of Defendants, dated 13 September 2019 (B.E.2562).

[10] See note 1.

habitants fuelled indifference to personal idiosyncrasies. Routinized and offense-based considerations also trivialized the importance of suitability assessment, thus depriving judges of adequate information to correctly measure proportionality and necessity.

Insufficient knowledge about the pains of Thai probationary EM continues. Existing research reveals offenders' agreement to be more intensively supervised than traditional probation (Department of Probation, 2015, p.59). It also reports their general preference for EM over incarceration, along with the intervention's minor physical, mental and social impacts (Poonyarith et al., 2016; Siriwato & Poonyarith, 2017). These impacts of EM are unsurprising, considering typically moderate requirements and the seemingly non-punitiveness of criminal justice personnel. However, the lack of comparative findings of competing measures – and the dearth of data on the pains of co-habitants – still make the current knowledge inadequate to properly locate EM in the punitive scale. More research is urgently needed to inform practice.

Recommendations for Thailand

The above weaknesses of both EM programs result from insufficient attention to ethical foundations. This section will thus offer recommendations on how to improve on this aspect. The following list might not be exhaustive but nevertheless essential if responsible use of technology is to be attained.

1. Redirecting the Approaches

As earlier argued, both EM bail and EM probation programs suffer from confusion and ambiguity. EM bail mistakes formal equality for equity. EM probation, while claiming to reduce incarceration, is neither likely to decarcerate nor rehabilitate due to practical obscurity. To amend these flaws, a serious reconsideration of both programs' approaches is required.

The lack of rigorous risk assessment lies at the bedrock of Thai bail problems. Absent the proper fix of this fundamental flaw, the use of EM risks disproportionality and failure to achieve pre-trial justice. Therefore, successful implementation of EM bail should be housed in a broader scheme of risk-based bail reform. With an ultimate goal of pre-trial equity, EM and other supervision strategies will be determined by risk levels and feasibility of post-release conditions, thus ensuring proportionality and equality of impacts. Moreover, this new direction yields another benefit of decreasing the pre-trial population. By matching supervision strategies with risks, EM may add credibility to regular post-release conditions and give judges the needed confidence in releasing more individuals charged with serious accusations.

To promote decarceration and rehabilitation for EM probation, these aims have to be clarified of their essential ingredients. Decarceration should be explicit within the rhetoric of non-custodial alternative. With such clarity, attention will be redirected to channeling legally custody-eligible but non-dangerous offenders away from prisons so that EM can be a real alternative to incarceration.

Simultaneously, rehabilitation should be defined with the ultimate objective of long-lasting desistance, not just short-term compliance. Humanistic values necessary to influence long-term desistance should be emphasized, namely respect for human dignity and trust. This clarified framework helps the authority to develop a supportive and non-punitive mindset aimed at positive changes of offenders. Under this direction, EM and its control capacity will not be deployed to effect pains but instead as a tool to restructure offenders' chaotic lifestyles. It will not be used to induce unnecessary fear but rather responsibilization. To achieve this, offender-centric and individualized strategies should substitute the routinized and offense-based decision making. EM should be a part of a master rehabilitation plan, carefully tailored to each offender's idiosyncratic needs, weaknesses and strengths. Accordingly, the scheme would require a good-quality pre-sentence report that covers not only thorough background information but also comprehensive suitability assessment.

These suggestions necessitate several studies to fill the current knowledge gaps. First, it is imperative to know whether and how EM could motivate compliance. Furthermore, it is extremely significant to learn more about the types and degrees of pains inflicted by EM in both programs. The latter research is especially important in the context of proportionality.

2. Emphasizing the Human-Based Components of the System

EM's surveillant technology relies on offenders' cooperation. For surveillance-based deterrence to work, the technology must be reliable and it is equally important that offenders must so believe. The scandal with removable devices that led to the cancellation of the latest EM probation pilot may long undermine the credibility of the technology and it might take efforts to restore. This mishap is a cautionary tale against hasty adoption of technology without careful examination and also a reminder that trust is indispensable for the high-tech in criminal justice.

Surveillance-based compliance requires that offenders constantly be reminded that they are under monitoring and breaches will beget definite sanctions (Hucklesby, 2009, pp. 262-263). Hence, EM has to be supported by a robust system of constant reminders and timely response to a breach. However, there seems to be no earnest coordination with the police to immediately intervene or arrest the tagged individuals after a breach. EM practice handbooks of both the Judiciary and the DOP direct monitoring officers to report a breach to the judge and wait for the decision whether an arrest warrant will be issued (Judiciary of Thailand, 2017b, p.47; Department of Probation, 2019, pp.34-35). Nevertheless, there is no recommendation on what to do if a breach occurs out of office hours. Anecdotes from several courts reveal that officers still file their reports during office hours since there are no judges assigned for this extra-hour duty. Therefore, an arrest warrant can be issued long after a breach occurs – too late to be viewed as timely. There have never been reports about the victim-oriented use of EM. However, effects on deterrence aside, this delayed response would

be utterly ineffective in protecting the victim from imminent danger posed by the offender's breach.

Consequently, even a deterrent EM could not be dispensed with human-based infrastructure. Human support is equally paramount in a rehabilitative regime where EM should be used in combination with professional assistance. The significance of human-based components creates the necessity of adequate staffing and ample training. Also extremely crucial is the collaboration with associated agencies (the police and other rehabilitation-related organizations) in creating comprehensive networks of supervision and support for deterrence and rehabilitation.

3. Carefully Balancing Pains of EM with its Necessity

The tenets of proportionality and parsimony require a meticulous measuring and balancing between the necessities and the negatives of EM. However, both the current Thai EM bail and EM probation schemes risk violating these two principles, largely due to non-individualization and information deficit on the perspectives of offenders and their co-habitants. Remedying the dearth of data could significantly increase individualization. Although the diversity of EM conditions and programs makes it difficult to generalize the pains assessed in any circumstances of use, in-depth lived-experience studies may give rough sketches of the types and degrees of the negatives of EM, as well as its positives. Caution will have to be exercised regarding factors of intensity namely the duration of the order, the curfew hours, the size and perimeter of the exclusion zone and other conditions that disrupt the normal lifestyles of offenders and their co-habitants. Also a significant variable is the tightness of control according to staff's penal attitudes (See Crewe, 2011).

This sketchy knowledge of pains could be used to construct the baseline of supervision as the initial guidance of proportionality and parsimony. Ideally, estimated impacts of EM in any particular case should be compared with the baseline of intensity and its related pains, to be varied across levels of supervision necessities. This baseline is, on the one hand, promises utility from the recommended degree of supervision. On the other hand, it serves as the limit of pains beyond which they would be deemed disproportionate. To comply with parsimony, the outcome of this test should also be compared with those of non-EM alternatives to determine which 'effective' intervention is the least onerous. To perform these steps of reasoning requires the establishment of various baselines of intensities and pains and also more studies about the impacts of non-EM interventions. The complexity of these tasks indicates that using EM ethically is inevitably difficult and in many aspects mandates a holistic consideration of all relevant legislative and administrative tools in determining the degrees of supervision intensity.

Thai EM bail is a fine situation that demands this comprehensive view. The various bail-support mechanisms recently introduced are designed to mitigate the damages of absconding, thus lessening the need for overcautious bail conditions. The newly authorized

measures include trial in absentia[11], the increased threshold of monetary bail mandate[12], the appointment of bail supervisors[13], monetary rewards for officers who apprehend absconders[14], and the establishment of court-appointed arresting officers called 'court marshals'[15]. With this comprehensive pre-trial infrastructure, the intensity of bail needs not match its previous onerousness. Accordingly, justifying EM or even monetary bail in this environment will require a more convincing argument on why less burdensome options are still insufficient.

4. Adopting Standard Protocols on Data Protection

Data protection is a special ethical issue of EM because of its potent capacity of privacy intrusion. Given inadequate safeguards, the power to generate sensitive and private information is vulnerable to abuse. Since EM-generated mobility records may potentially have intelligence and evidentiary values, tension between privacy and security may become more acute with the need of expansive policing. The fact that Thai EM data are generated and stored by either the Judiciary or the DOP does not preclude the concern about police access and inappropriate data handling. To address this ethical issue, relevance and proportionality should be discussed at the policy level and data protection protocols be adopted for transparency and accountability.

In this regard, the Council of Europe's recommendation on EM[16] provides good guidance. In this framework, data generated by EM should be recorded and exploited to serve legitimate and clearly specified purposes at the time of collection, and for those purposes only. The data should also be accurate and securely protected against unauthorized access. These considerations are translatable to questions of what, who, how and how long. The 'what' question refers to the information to be used for monitoring. The 'who' signifies the person or agency eligible to get access to the data. The 'how' implies the process by which data are stored and protected. Finally, the question of 'how long' means the period of time for which data will be kept and the point at which they will be eliminated.

It is a good sign that the Judiciary of Thailand has issued the directive[17] affirming data protection principles and attempting to answer the above queries. The directive mandates the protection of confidentiality and secured limited access. It also mentions information accuracy and destruction of unnecessary data. This is the step in the right direction, although details of these requirements are yet to be elaborated. The specifics of a protection plan deserve the attention of a separate study and will therefore be off the scope of this article. It

[11] Criminal Procedure Code Amendment Act (No.33) 2019 (B.E.2562), Section 6.

[12] Criminal Procedure Code Amendment Act (No.34) 2019 (B.E.2562), Section 3.

[13] Bail Supervision and Apprehension of Absconding Person Act 2017 (B.E.2560), Section 4.

[14] Bail Supervision and Apprehension of Absconding Person Act 2017 (B.E.2560), Section 7.

[15] Court Marshal Act 2019 (B.E.2562) and Criminal Procedure Code Amendment Act (No.34) 2019 (B.E.2562), Section 4.

[16] See note 1, Rules 29-32.

[17] Directive of the Judiciary of Thailand on the Storage, Access and Utilization of Data Generated from Electronic Monitoring at a Pre-trial Stage 2018 (B.E.2561).

suffices to conclude briefly at this point, however, that protection of personal data is a major issue in itself and needs careful management even when the information belongs to a convicted offender.

5. Commissioning a Rigorous Evaluation Study

The legitimacy of any penal intervention depends on its successful evaluation results, especially when compared with other alternatives. Objectively proving performance requires a rigorous study conducted with scrupulous care and awareness of evaluative pitfalls. It should be cautioned early on that the versatility and diversity of EM programs greatly complicate the effort. Several contextual factors are typically unique and interdependent, thus moderating the supposed causality of EM (Belur, Thornton, Tompson, Manning, Sidebottom, & Bowers, 2017). Without the careful designs of methodology, any claim of success or failure is highly susceptible to incredulity or downright invalidation. So far, very few EM studies have managed to produce credible, let alone generalizable, evaluation results (Renzema, 2013).

On this account, the evaluation report for Thai EM bail (Judiciary of Thailand, 2018) fails to produce reliable findings. The clustering of EM on minor offenders and the merger between EM and monetary bail make it impossible to disentangle the true effects of EM from other variables on bail compliance. The mid-term cancellation of EM probation pilot prevented full evaluation results and the program's likely net-widening effect may still have caused selection bias. Considering possible legal and ethical challenges against randomized controlled experiments, the future evaluation for both EM programs should be a quasi-experimental study with a careful multivariate regression analysis and a rigorous qualitative research to remedy the flaws of each other. Great caution is still vital in the later measurement for quality control and service improvement. Likewise, to maintain services of high-quality, an assessment study should be conducted at regular intervals.

Conclusion

EM is merely a form of surveillance technology and has no inherent objective. How it should be used should rather be determined by ethical grounds and clearly specified purposes (McIvor & Graham, 2016; Nellis, 2016). EM bail should be aimed at pre-trial equity and housed in a risk assessment scheme. EM probation should be applied to effect rehabilitation and decarceration. Careful individualized considerations play an integral part in the success of both schemes and are essential in achieving proportionality and parsimony.

Regrettably, both EM programs in Thailand have suffered from ambiguity in philosophical foundations as a result of managerial influences and over-enthusiasm over the technology. EM bail is used simply as an alternative to monetary security. The cancelled EM probation was merely an additional tool of control used mostly on non-borderline offenders. Both schemes have a high probability of net-widening and disproportionality due to routinized practice and lacking data on offenders' perspectives.

Nevertheless, the advantage of the introductory phase is that it is not too late for policy makers and practitioners to devote more of their endeavors to the fundamentals of the programs. This requires the commissioning of more research and investment in the infrastructure of evidence-based decision-making. These efforts are unavoidable and would not necessarily be more expensive than the cost of technology. It is therefore strongly recommended that both EM programs of Thailand be improved following the suggested foundational considerations. Under such ethical guidance, the technological capacities of EM will be far more likely to deliver the intended effects while not causing unjustifiable pains and creating more problems than actually solving them.

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