Decoding the DNA Bill

Important safeguards are needed

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The DNA Technology (Use and Application) Regulation Bill, 2018 has been introduced in India's Parliament this week, with a view to creating a national DNA database for solving crimes and identifying missing persons.

Although DNA can be an important tool here, it is important that there are safeguards to protect human rights and prevent miscarriages of justice. Further, creating large databases is often not a cost-effective way to solve more crimes, and limited resources must be targeted effectively.

The Forensic Genetics Policy Initiative published its report, “Establishing Best Practice for Forensic DNA Databases”, last year after extensive consultation and a review of policies worldwide. A comparison with the DNA Bill reveals a number of important issues.

First, using DNA effectively during criminal investigations requires proper crime scene examination, trained and reliable policing, a trusted chain of custody of samples, reliable analysis, and proper use of expert evidence in court. Without these prerequisites, a DNA database will exacerbate rather than solve problems in the criminal justice system (false matches or misinterpretation or planting of evidence, and diverting resources).

The Home Ministry circulated a set of guidelines to States in July on how to search crime scenes and collect, store and transport DNA samples in criminal cases. However, it is not yet clear whether these guidelines will be effective. Because many errors occur before samples get to the laboratory, the requirement for laboratory accreditation in the Bill should include quality assurance for crime scene examination. Consideration should be given to an independent forensic science regulator. There is also a need for elimination databases for police, crime scene examiners and laboratory workers, whose DNA may contaminate the evidence they touch.

The Bill’s proposed DNA Regulatory Board is still too powerful and insufficiently transparent or accountable. An independent ethics board should be set up. Provisions which give the government or the Board the power to amend aspects of the safeguards in the Bill, and to avoid accountability in court, should be deleted.

The Board’s responsibilities for privacy protections need an independent regulator: the easiest way would be prior adoption of a privacy or data protection bill (with a role for a data protection officer). This would allow individuals some recourse if their rights were not protected, important, especially following the Supreme Court’s Right to Privacy judgment.

A number of other privacy protections are also missing – the need to restrict DNA profiling so that it uses only non-coding DNA, a commonly used international standard for one. Rightly, the Bill includes provisions for the destruction of DNA samples and removal of innocent people’s DNA profiles from the database. However, these provisions are inadequate: currently, the removal of innocent people’s records is not automatic. Any international sharing of DNA profiles should also be covered by a privacy or data protection law, and meet international human rights standards.

Database separation

Further, it is a best practice to separate the databases for missing persons and for criminals set up by the Bill, so that people who volunteer their DNA to help find their missing relatives are not treated as suspects for criminal offences. Provisions allowing the use of these databases for civil cases, for example to test paternity, should be deleted from the Bill. More detail is also needed to specify that volunteers must be fully informed about future storage and uses of their genetic information before they give consent.

The Bill allows two categories of persons to have their DNA collected without consent and their DNA profiles added to the database. These are persons suspected of any offence, where an order is made by a magistrate, and persons suspected of more serious offences, where an order from a magistrate is not required. Who should be included in the database, and whether a court should always have a say, is an important matter for national debate. However, there is no attempt to assess the cost effectiveness of these provisions or to estimate the database’s likely size.

The financial memorandum to the Bill estimates that there will be a one-off cost of ₹20 crore to set up the database, with annual costs of ₹5 crore to maintain it. This is completely unrealistic: for comparison, the U.K. National DNA database cost £3.7 million to run in 2015-16. International evidence shows that the success of a DNA database is driven primarily by the number of crime scene DNA profiles loaded on to it, not by the number of DNA profiles from individuals, so proper crime scene analysis should be the top priority.

In short, important safeguards and a cost-benefit analysis are still lacking for this Bill, which needs full parliamentary scrutiny.

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