

# Emerging Technological Trends in Child Protection

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**Abstract:** *The protection of children against abuse has been an area of reformation in India, especially since the amendment of the Juvenile Justice (Care and Protection of Children) Act 2000 and the introduction of the POCSO Act 2012. The implementation of these legislations, paved way for the child protection professionals in India to review the services provided to vulnerable children and to adopt alternate methodologies to ensure their safety and welfare. With the advancement in technology, and with the exponential number of children being exposed to the Cyber space through the Internet, child protection is even more challenging than ever. The abusers utilize social media, the Dark Web and gaming portals to target and abuse children. However, advanced technology can be utilised to identify abusers and fight this battle for justice to protect children. This research paper aims to review the various technologies implemented by the Child Protection Agencies in Kerala to safeguard children. In addition to this, the paper also attempts to identify the reach and impact of such technological measures to protect children through the study of various government and non government sources.*

**Key words:** Children, Child Protection, Technology, Child Abuse

## 1. Introduction

“There can be no keener revelation of a society's soul than the way in which it treats its children” (Nelson Mandela 1995) Children are the most vulnerable in our society and hence their protection becomes paramount to the healthy survival of humanity. Child Protection or safeguarding children encompasses all the measures adopted in order to protect children from physical, emotional and sexual abuse and ensuring that their needs are adequately met for a healthy development into adulthood.

Historically children have been a group who have been exploited and abused due to their increased vulnerability, brought about by their dependency on a suitable carer to support them into maturity. Every child has a right to a safe and content childhood which is free of abuse, violence, exploitation and any form of ill treatment or neglect that would hinder them from achieving holistic growth and development. However these rights are violated time and again, as a result of economic exploitation (child labour, child prostitution, substance misuse, child trafficking), cultural practices (infanticide, female genital mutilation, child marriages), poor parenting (physical chastisement, domestic violence, mental health

issues) and adult perversions (paedophilia, child pornography).

The article is an attempt to understand safeguarding of children from a technical perspective focusing on Kerala, which is one of the advanced states in India with respect to technological development, education, health and well-being. The methodology utilised is a review of published literature from government and non government sources and opinions and impressions of people working in the safeguarding service within Kerala.

## 2. Technology pitfalls in Child Protection

With the Global Pandemic brought about by Covid- 19, the world has gained a better understanding of the merits of technology. At the same time, it has also resulted in increased exploitation and abuse of children utilising cyber technology[1]. Internet provides an easy access to online predators, especially with the majority of our children accessing the internet for education, communication and entertainment.

The Cyber world is an enticing world with unlimited possibilities and it is easy for children to be drawn into this adventurous yet seemingly personal space, as most of them access this world from a place which is deemed as

safe. Children most often uses a personal phone, tab, computer, laptop or a game console from the safety of their home or a known place. Predators use social media, online gaming portals, the dark web, phishing websites, hacking tools to commit offences against children. As a result children are becoming victims to Child Sexual Abuse Material (CSAM), targeted sexual and financial exploitation, cyber bullying, grooming, defamation, online child trafficking, online extortion, Sexual harassment and Cyber stalking [1]. With high speed internet facility and availability of nano sized broadcasting devices, latest concerns are also around online live streaming of child abuse, bespoke child abuse materials and sextexting [2].

Protecting the welfare and rights of children have become increasingly important to mankind due to an increased understanding of their vulnerability and individuality. Protecting children is also an ideal way to a healthy survival of the human species. A landmark achievement in this regard had been the United Nations Convention on the Rights of Child (UNCRC) in November 1989 which was ratified by the Indian Government in 1992 [3].

### 3. Child Protection- An Indian perspective

India has seen and experienced its own share of child protection issues and continues to do so in many aspects. Since becoming a signatory in the UNCRC, India's progress in implementing Child Protection procedures have been slow. But with the amendment of the Juvenile Justice (care and protection) Act 2000, introduction of the Protection of Children Against Sexual Offences (POCSO) Act 2012 and the National Policy for Children 2013, matters have progressed in India with regard to safeguarding children.

According to the National Policy for Children 2013, Section 3 (10) "*safety and security of all children is integral to their well-being and children are to be protected from all forms of harm, abuse, neglect, violence, maltreatment and exploitation in all settings including care institutions, schools, hospitals, crèches, families and communities*"[4]. The Juvenile Justice (Care and Protection of Children) Act, 2000 spells out the criminality of offences committed against children. "*Punishment for cruelty to juvenile or child.— Whoever, having the actual charge of, or control over, a juvenile or*

*the child, assaults, abandons, exposes or wilfully neglects the juvenile or causes or procures him to be assaulted, abandoned, exposed or neglected in a manner likely to cause such juvenile or the child unnecessary mental or physical suffering shall be punishable with imprisonment for a term which may extend to six months, or fine, or with both*"[5]. JJ Act also set out the establishment of Child Welfare committees, Juvenile Justice Boards and ensured changes were brought about to safeguard children across India. POCSO Act 2012 Sections 3, 5, 7, 9, 11, 13 and 16 spells out the punishable sexual offenses against children [6].

The Government of India established an Integrated Child Protection Scheme (ICPS) in 2009-10 [7] which ensured that there are measures in place for the appropriate implementation of the JJ Act 2000 and brought together various services for the welfare and protection of children. It is clear that the legislations and services in India consider child protection as a serious matter, with responsibility given to each state to implement the schemes appropriately.

### 4. A Kerala Model

Kerala has always been a pioneering state when it comes to Education, health and the well-being of its community with its physical quality of life index matching those of international standards [8]. Kerala was ranked first in India According to the SDG India Index by NitiAayog in 2019 [9]. Sustainable Development Goals are a set of guidelines by the UN to achieve a sustainable and healthy future for all. Kerala is also a growing hub for technology and technological advancement with High speed internet highways, digital friendly educational institutions, dedicated technological development hubs etc. ICPS was implemented in the year 2009-10 [10] itself, making Kerala one of the fore runners in ensuring that adequate and innovative measures are in place to protect children.

### 5. 10.9.8... Toll Free Number

A toll free telephone number is one of the simplest yet highly effective technologies that is continuing to be utilised to protect children in Kerala. 1098 is operated by Child Line India Foundation, which started as a field action project of Tata Institute of Social Sciences and later

came to be adopted by the Ministry of Social Justice and Empowerment which funds its current operations [11].

Today, the toll free number is a symbol of hope to many children across Kerala and India. It is a number that is easy to remember and hence it is easily accessible for children. Child Line has nodal agencies set up in almost all districts in Kerala. Speaking to social workers based in Child Line it is understood that, apart from the toll free number they have no further technical innovations. They rely on popular social media to communicate and connect with each other and other professionals. Technological innovations such as video links and video recorded interviews accepted statutory systems has helped them accomplish their jobs better and ensure better privacy and safety for the children. This helps to avoid delay and also prevent children from being moved around, which can add to their distress and trauma and from having to repeatedly narrate traumatic events. A major concern expressed by a Child Line worker was the delays as a result of inter agency working especially due to the limited and delayed information that gets shared between agencies. However they understand that this cannot be prevented, as maintaining the confidentiality of the victims are paramount. They are yet to consider any new technological innovations that will further aid their work in the child protection area.

#### **6. Track Child 2.0 National Tracking System for Missing and Vulnerable Children**

The Portal developed by the ICPS was introduced in 2015[10]. This provides a virtual space for stakeholders to enter and retrieve information regarding missing children in the country. The Kerala Portlet can be accessed via <https://trackthemissingchild.gov.in/trackchild/kerala> on the national database. There are mixed reviews regarding the portal.

Speaking to a DCPU officer in Kerala, it seems that there is very little utilisation of these services in Kerala. It is further understood that all DCPU offices receive information about missing children from across the country via emails on a daily basis and the Kerala police have a fast response rate and hence they have not really utilised this portal. On the other hand, it is noted to be the only national database for missing children and children in

distress. The portal utilises a Data Base Management System which can be updated by professionals and lay persons alike. It indicates the various missing and recovered children on a day to day basis. The Kerala Portlet also provides necessary information to access other services such as Child Line, Police, Juvenile Justice Boards and Child Welfare Commissions across the country.

#### **7.Kerala Police**

Kerala Police have come up with innovative measures to fight crimes at various levels. From simple toll free numbers to utilising Artificial Intelligence and Social Engineering techniques, the police force in Kerala employs various techniques and technologies alike to fight crime against children. As with other states, the Kerala Police is linked with the Interpol monitoring systems via VPN. Kerala Police utilises this information with a state of the art surveillance to monitor predators targeting children. The force has received various commendations from Interpol for their ventures.

**Cyber Dome** is one such innovative project established in 2015 that brings together a Public Private partnership to combat crime with advanced technology. Cyber Dome is not an exclusive agency working towards safeguarding children. However, Cyber Dome takes targeted measures to protect and safeguard children with preventative and protective measures using Cyber Intelligence, Cyber Security, Research & Development, Incident Responses, Forensics and knowledge building and dissemination of awareness programmes [12]. It is a solution focused project that looks at bringing in technological expertise from the Information Technology Sector to aid police with criminal investigations. The Partnership which is purely run on a voluntary basis is one of a kind in the country by any law enforcement agency.

**Kidglove Project** was launched 6 years back by the Kerala Police, in association with the Information Security Research Association (ISRA) as part of C0C0N (International Security and Hacking Conference). The project is a capacity and awareness building venture for children to keep themselves safe in the cyber space. In December 2020, Kidglove launched a website for children, parents and other professionals who work with

children. The project has till date given live training for more than 1000 schools in the state on cyber safety. The website itself is simple to use, child friendly and provides information and certified online training to improve cyber safety awareness. The project which partners with Australian e-safety commissioner and Australian Centre to Counter Child Exploitation, ensures international standards for its service delivery. [13]

**P- Hunt (Paedophile Hunt)**-Kerala Police CCSE (Countering Child Sexual Exploitation) Team under the Cyber Dome carried out a dedicated operation to crack predators who were uploading, downloading and sharing Child Sexual Abuse Material. There were three such operations carried out in 2020 alone. The Operation is rated highly successful by the police department themselves as well as partner agencies and media. Over the last few years, 525 cases were registered and 428 were accused and arrested for handling Child Abuse material. Perpetrators were seen to use social media groups, hiding the abusive content using technology to delete files, accessing webcam using spyware on vulnerable children etc. A well-equipped police force with technological back up including IP address tracing, social engineering and Cyber Forensics, was able to track down a number of these groups. Such initiatives not only help to bring down criminals but also give a warning to potential criminals about possible consequences apart from ensuring justice to child victims[14].

Police officers within the Cyber cell and Cyber Dom appeared very enthusiastic and proud of their contribution towards preventing crime and safeguarding children. They welcome volunteers to associate with them in their process. Technical advancement provides them challenges and solutions at the same time in combating the criminals who utilise technology to target the vulnerable children. Kerala police appears to be looking at Robotics, Facial Recognition, Virtual Reality, Artificial Intelligence, Intelligent Log Analysis, Dark Net Crawling, Predictive Policing using Big Data Analysis and Open Source Intelligent Analysis as a way forward for enhancing cyber policing and thereby protecting children and other vulnerable persons[15].

## 8. Conclusion

Over the last century, technology has boomed and the last few decades have seen it cascading to the grassroots level, with everyone carrying the world in their hands. This has definitely brought the world closer with its huge network and yet created vast virtual spaces that are still an enigma to the majority of the world. It almost seems like a well-lit highway with traffic yet surrounded by alley ways that lead to everything and anything which is exciting and fear evoking at the same time, when one pauses to think seriously about it.

A human child prior to reaching maturity requires a nurturing and protected environment for at least 16- 18 years to ensure his or her entry into the adult world. However at quite an early stage they are probably allowed access into the exciting yet fearful world of technology through the use of computers, smart phones, tabs and gaming consoles. Are we stopping to think of it as too early or too late? Many parents may worry that their offspring might become technically disadvantaged if they are not allowed to roam the world of technology. In Kerala, it has been quite worrying, to observe that children as young as 6 months are being allowed to play with a smart phones without adult supervision.

It is obvious with the crime index provided by the Crime Records Bureau that Crime Against children are increasing and it is even more challenging for Children's Safeguarding agencies to prevent abuse and protect our children from falling prey to technology and technology induced crime.

The review sheds light that whilst technology has advanced, all agencies are yet to fully tap into the technological developments. Most agencies continue to use simpler or common forms of technology such as telephones, emails or common social media such as Whatsapp or Telegram.

Despite the availability of a National Portal for Missing Children utilising a Data Base Management System, it may not be a preferred means for many agencies partially due to an alternative effective system provided by the Local Police and due to duplication of information via emails. The system appeared quite complicated and not very user friendly when the researcher attempts to browse. It is also unclear if the system is timely updated,

especially as some of the information can be updated by lay persons or parents themselves. If effectively used, a good Data Base Management System can provide timely information and updates regarding children who are in distress or in vulnerable situations. However, the security and confidentiality of the information has to be assured to protect the identities of these children.

Funding issues can be a possible deterrent in updating technology and bringing it to the forefront for the protection of children. However Kerala Police seems to have found an alternative means of utilising private involvement with their Public Private Partnership through the Cyber Dome initiative. This has provided a multitude of solutions in bringing together expertise in Information Technology and innovative policing to ensure a techno savvy system to combat crime and there by protect children. The system also ensures preventive measures such as social engineering techniques and awareness strategies in respect of preventing child protection issues. One such initiative is the Kidglove project that specifically targets children to improve their skills to navigate the internet safely. Potential child traffickers are also targeted via the project P-Hunt where the police have been able to bring about many arrests and charge sheets. As of now, the Public Private Partnership appears to be a good working model receiving appreciation from the International realms.

Despite the various innovations, the figures denote that child related crimes are on the rise in Kerala. There are a multitude reasons for this. One is that there is an increased rate of crime reported in Kerala due to the awareness of the people which can be considered positive. However on the other hand it is an indicator of increased number of crimes being committed as well. A further study needs to be completed in this respect to understand any further underlying causes for the same in Kerala.

One can confidently state that the child protection scenario in Kerala does try to utilise advanced technology in at least some sectors with many innovative and quality projects being implemented to ensure the safety and welfare of children.

## 9. Suggestions

Fight to safeguard the welfare and rights of children is still a continuing battle, where one can hope for a better future for our children. Technology is definitely contributing to both sides of the battle. Adding to technology, a good integrated networking and inter agency working is key to improving information sharing and the delivery of services to prevent child protection concerns and protect children with our best possible abilities. More Public Private Partnerships should be encouraged at the government level to ensure updated resources and technology in ensuring the safety of children. ICPS can consider an encrypted Data Base Management System for child protection concerns, where data can be made available to select personnel preventing delay in information sharing process. Smart phones and apps can be made available to children to record their concerns directly to government and thereby ensuring that the children's views are effectively heard.

Let us be mindful that our children are the torch bearers of tomorrow and let us ensure that the community comes together to protect and safeguard our future.

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