**An Assignment on**

**Building a Secure Digital Identity Future: Proposing Legal Reforms for Cyber Law in Bangladesh Based on Global Best Practices**



An Assignment submitted to the Department of Computer Science and Engineering,

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**1. Introduction**

The digital era has transformed how individuals interact, transact, and assert their identities online. With technologies like blockchain, decentralized finance (DeFi), and digital wallets gaining traction, the concept of digital identity is at the forefront of global cybersecurity discussions. In Bangladesh, where digital adoption is surging, the absence of robust identity management frameworks exposes citizens to risks like identity theft, fraud, and unauthorized data exploitation. Current cyber laws, while evolving, lack provisions to regulate decentralized systems and ensure trust in digital identity ecosystems.

This paper examines the state of cyber law in Bangladesh, compares it with leading global frameworks, and proposes innovative legal reforms to establish a secure, decentralized digital identity system. By drawing on international best practices and anticipating future trends, Bangladesh can create a resilient legal framework that protects citizens’ digital identities while fostering trust and innovation in the digital economy.

**2. Cyber Laws in Bangladesh: Present Scenario**

Bangladesh has made strides in addressing cybercrimes, but its legal framework remains incomplete, particularly in the realm of digital identity management. The **Cyber Security Act (CSA)** of 2023, which replaced the controversial **Digital Security Act (DSA) of 2018**, introduced measures to combat cybercrimes but retained vague provisions that raised concerns about enforcement transparency. The **Cyber Protection Ordinance (CPO) of 2024** repealed problematic sections of the CSA, recognized internet access as a civil right, and criminalized cyber harassment. However, organizations like Transparency International Bangladesh (TIB) and ARTICLE 19 have noted persistent issues, including ambiguous definitions and limited public consultation during drafting.

Key laws shaping Bangladesh’s cyber governance include:

**2.1 Information and Communication Technology (ICT) Act, 2006**

- The first comprehensive cyber legislation in Bangladesh.

- Addresses hacking, identity theft, and cyber pornography.

- Criticized for vague language and misuse of Section 57 (later repealed).

**2.2 Digital Security Act (DSA), 2018**

- Expanded the scope to include digital fraud, cyberbullying, and defamation.

- Key features:

- Establishment of cyber tribunals for digital offenses.

- Provisions for real-time surveillance by law enforcement.

- Criticism:

- Broad provisions used to curb free speech.

- Lacks specific guidelines for digital identity protection or decentralized systems.

Bangladesh currently lacks a dedicated **Digital Identity Protection Act**, leaving citizens vulnerable to identity-related cybercrimes as digital services like mobile banking and e-governance expand.

**3. Cyber Laws in Top 5 Developed Countries**

**3.1 United States**

**Laws**: Identity Theft and Assumption Deterrence Act, NIST Cybersecurity Framework.

**Strengths**: Robust identity theft laws and federal guidelines for secure digital authentication.

**Innovation**: Decentralized identity pilots (e.g., blockchain-based IDs in government services).

**3.2 United Kingdom**

**Laws**: Data Protection Act 2018 (GDPR-aligned), UK Digital Identity and Attributes Trust Framework.

**Focus**: Citizen-centric digital identity systems with privacy-first principles.

**Collaboration**: Partnerships with private sector for secure identity verification.

**3.3 Germany**

**Laws**: GDPR, Federal Act on Electronic Identities (eID).

**Strengths**: Strict regulations on digital identity systems and biometric data usage.

**Innovation**: Blockchain-based identity solutions for public services.

**3.4 Japan**

**Laws**: My Number Act (national digital ID system), Act on the Protection of Personal Information (APPI).

**Focus**: Centralized digital IDs with strong cybersecurity measures.

**Strengths**: Public-private partnerships to secure digital identity ecosystems.

**3.5 Canada**

**Laws**: Personal Information Protection and Electronic Documents Act (PIPEDA), Digital Charter Implementation Act.

**Focus**: Privacy-first digital identity frameworks and interoperability with global standards.

**Strengths**: Leadership in international digital identity standards (e.g., Pan-Canadian Trust Framework).

**4. Bangladesh vs. Developed Countries: A Comparative Snapshot**

| **Feature** | **Bangladesh** | **USA** | **UK** | **Germany** | **Japan** | **Canada** |
| --- | --- | --- | --- | --- | --- | --- |
| **Digital Identity Law** | None | Identity Theft Act, NIST | Digital Identity Trust Framework | eID Act, GDPR | My Number Act, APPI | PIPEDA, Digital Charter |
| **Cybercrime Handling** | DSA, CPO (often vague) | CFAA, NIST Standards | Computer Misuse Act | BSI Act, GDPR | Cybersecurity Strategy | Criminal Code + Treaties |
| **Privacy Protections** | Limited | CCPA, State Laws | GDPR-based | GDPR, Strict Biometric Rules | APPI, Privacy Focus | PIPEDA, Privacy Charter |
| **Decentralized Systems** | None | Blockchain ID Pilots | Emerging Blockchain Standards | Blockchain ID Initiatives | Limited Blockchain Integration | Pan-Canadian Trust Framework |

**5. Proposing Unique Legal Reforms for Bangladesh:** A Decentralized Identity Blueprint

To secure Bangladesh’s digital future, the country must address the growing importance of digital identity in an era of blockchain, DeFi, and decentralized applications. Below are six innovative legal reform proposals tailored to Bangladesh’s needs, inspired by global leaders but contextualized for local realities.

**5.1 Decentralized Digital Identity Act**

**Problem**: Centralized identity systems are prone to data breaches and exclude marginalized populations without access to traditional IDs.

**Proposed Reform**: Enact a law mandating the development of a blockchain-based decentralized digital identity (DID) system for all citizens by 2030. Key features include:

- Self-sovereign identity (SSI) where users control their data via digital wallets.

- Interoperability with global standards (e.g., W3C DID specifications).

- Free digital ID issuance for rural and underserved communities to promote inclusion.

Additional Measure: Partner with organizations like the Linux Foundation to adopt open-source DID frameworks.

**5.2 Blockchain Governance and Smart Contract Law**

**Problem**: The rise of smart contracts in DeFi and e-commerce lacks legal recognition, leading to disputes and fraud.

**Proposed Reform**: Introduce a law recognizing blockchain-based smart contracts as legally binding under specific conditions:

- Mandatory code audits for smart contracts in financial and public sectors.

- A dispute resolution framework for blockchain transactions.

- Criminalization of malicious smart contract exploits.

**Additional Measure**: Establish a Blockchain Innovation Hub to train developers and regulators.

**5.3 Digital Identity Privacy Protection Act**

**Problem**: Unregulated collection of identity data by private platforms risks mass surveillance and data misuse.

**Proposed Reform**:

- Recognize digital identity data as a fundamental right under a new privacy law.

- Mandate explicit consent for identity data collection and sharing.

- Impose heavy penalties for unauthorized use of digital identities by private or state actors.

**Additional Measure**: Align with GDPR-like standards to facilitate international data flows.

**5.4 National Digital Identity Trust Framework**

**Problem**: Lack of trust in digital identity systems hinders adoption of e-governance and digital financial services.

**Proposed Reform**: Create a National Digital Identity Trust Framework under the ICT Ministry, with:

- Certification processes for identity providers (public and private).

- Public awareness campaigns to educate citizens on secure identity management.

- A sandbox for testing decentralized identity solutions in e-governance.

**Additional Measure**: Collaborate with international bodies like the UN for global interoperability.

**5.5 Cyber Fraud and Identity Theft Task Force**

**Problem**: Rising cases of identity theft and phishing require specialized enforcement mechanisms.

**Proposed Reform**: Establish a dedicated Cyber Fraud and Identity Theft Task Force under the Bangladesh Police, with:

- Specialized training in blockchain forensics and digital identity crimes.

- A 24/7 helpline for reporting identity theft.

- Partnerships with global cybercrime units (e.g., INTERPOL).

**Additional Measure**: Launch a national database for tracking identity fraud incidents.

**5.6 Regional Digital Identity Cooperation Pact**

**Problem**: Cross-border identity fraud and lack of regional coordination hinder effective cybercrime prevention.

**Proposed Reform**: Lead a South Asia Digital Identity Cooperation Pact with India, Pakistan, Sri Lanka, and Nepal, including:

- Shared protocols for cross-border digital identity verification.

- A regional blockchain-based identity verification hub in Dhaka.

- Joint training programs for cyber law enforcement.

**Additional Measure**: Advocate for Bangladesh’s inclusion in global digital identity standards bodies.

These reforms aim to position Bangladesh as a pioneer in decentralized identity governance, balancing security, inclusion, and innovation. By addressing emerging technologies like blockchain, Bangladesh can build a trusted digital ecosystem that empowers citizens and drives economic growth.

**6. Conclusion**

Bangladesh stands on the cusp of a digital identity revolution. As technologies like blockchain and decentralized systems reshape global economies, the country must act swiftly to secure its citizens’ digital identities while fostering trust and innovation. By learning from global leaders like the USA, UK, Germany, Japan, and Canada, and adapting their frameworks to local needs, Bangladesh can create a cyber legal system that is both forward-thinking and inclusive.

The proposed reforms prioritize citizen empowerment, privacy, and regional leadership. Engaging youth, technologists, and marginalized communities in the reform process will ensure that Bangladesh’s digital identity laws reflect the needs of its people. This is not just about preventing cybercrime—it’s about building a future where digital identities are secure, accessible, and a catalyst for progress. The time to act is now.

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