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# DESIGNING THERAPEUTIC ROBOTS FOR PRIVACY PRESERVING SYSTEMS, ETHICAL RESEARCH PRACTICES, & ALGORITHMIC TRANSPARENCY

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# PRIVACY-PRESERVING PRACTICES
## BASED ON FAIR INFORMATION PRACTICES (FIPs)

- **Transparency** (no secret systems)

- **Access** (to individuals' records and their uses)

- **Privacy Controls** (ability to prevent information about oneself from purposes without consent)

- **Integrity** (ability to correct or amend)

- **Data Use Protections** (prevent data misuse)

# ETHICAL FRAMEWORKS

- Belmont Report

  - **Respect for persons** (individuals should be treated as autonomous agents; operationalized through voluntary informed consent)
  - **Beneficence** (obligation to maximize benefits and minimize harm)
  - **Justice** (distribute benefits of research fairly and carefully select research subjects to avoid undue burden from underserved groups)
  - **Special ethical considerations for vulnerable populations** (children, elderly, handicapped, or very sick)

- Menlo Report

  - **Respect for Law and Public Interest** (legal compliance and methods/findings transparency)

- Existing legal/policy guidelines (privacy laws and regulation)

# IMPLEMENTATION
## RECOMMENDATIONS FOR THERAPEUTIC ROBOTS

- ## Access to Data
  - Users should have options to prevent archiving, delete, & dispute/edit inaccurate data over lifespan of information system. Special considerations for choices of disabled/vulnerable persons.

- ## General Practice & Algorithmic Transparency
  - Notify users of all research practices (including algorithmic & product development), and provide notice of data inputs & algorithmic outputs that impact user

- ## Universal Informed Consent
  - Embrace dynamic informed consent models for all data uses (not just those required by law)

- ## Design for Privacy-Preserving Data Sharing
  - Utilize technical solutions (e.g., remote data access or open PDS models) to share data

- ## Anticipate New Knowledge & Unintended Consequences
  - Promote diversity in review process and build flexible information systems

# Questions? Comments?

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