AI and Emerging Technologies for the Benefit of Labor Ministries

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Why Talk About AI and Technology Now?

- **Accelerated labor transformation:** In some LAC countries, up to 75% of workers have 10% of their tasks exposed to AI.

- **Risk and opportunity:** Acting now allows ministries to lead this transition with accessible services and data-driven policies.

- **IDB's Impact + Strategy:** Promotes digitalization and institutional modernization to build more inclusive, sustainable labor systems.

What Do We Mean by Emerging Technologies?

AI and Big Data

AR/VR

Chatbots and biometrics

Sensors and IoT

The question is not whether to apply them, **but how to use them strategically** to expand the scope and quality of services.

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Main Areas of Application

1. Employment services

2. Job training

3. Labor inspection

4. Occupational health and safety

5. Social security

6. Labor justice and dispute resolution

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1 Employment Services

- **Matching in seconds:** AI allows real-time precise analysis of thousands of vacancies and profiles.

- **24/7 Chatbots:** Guide users anytime.

- **System trust:** Algorithms detect fraudulent job offers.

2 Job Training

- **Personalized training:** AI identifies existing skills and designs upskilling and reskilling pathways.

- **Building on experience:** Avoid starting from scratch, guide training toward high-demand sectors.

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3 Labor inspection

- **Strategic inspections:** Use tax, social security, and migration data to predict risk.

- **Better resource use:** Prioritize complaints and focus on areas with higher likelihood of non-compliance.

4 Occupational Health and Safety

- **Proactive prevention:** Smart sensors and analytics anticipate workplace risks in real time.

- **Safe training:** VR/AR enables practice in hazardous environments without endangering workers.

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5 Social Security

- **Fraud detection:** Algorithms spot inconsistencies in contributions.

- **Streamlined processes:** Automation speeds up payments and registrations.

- **Retirement planning:** Simulators help forecast retirement scenarios.

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6 Labor Justice and Dispute Resolution

- **Agile review:** Automatically analyze case files and extract key information.

- **Efficient processes:** Automation reduces backlog.

- **Greater consistency:** Analytics identify patterns and improve coherence of rulings.

- **Outcome:**
  Fewer delays, more transparency, more time to deliver justice.

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What Benefits Do These Bring to Institutions?

Adopting these technologies enables Labor Ministries to:

- Modernize their systems

- Work more efficiently

- Provide better services

- Have better information

- Anticipate labor market changes

- Be proactive rather than reactive in policymaking

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Key Challenges

Fragmented data: Lack of reliable, interoperable information limits AI use.

Digital skills gap: Need for trained staff to apply and interpret results.

Resistance to change: Transforming routines generates fear; requires change management.

Cybersecurity and privacy: Sensitive data needs strong protection and continuous improvement.

Ethics and transparency: Risk of bias and "black box" algorithms that reduce public trust.

Strategies for Adoption

- **Governance and coordination:** Integrate ministries and databases under shared objectives.

- **Digital talent:** Invest in skills to use AI strategically.

- **Modern infrastructure:** Ensure interoperable processes across institutions.

- **Ethical regulatory frameworks:** Build trust and institutional assurance.

- **Change management:** Ensure sustainable technology adoption.

- **Communication and pilots:** Inform, reduce resistance, and scale what works.
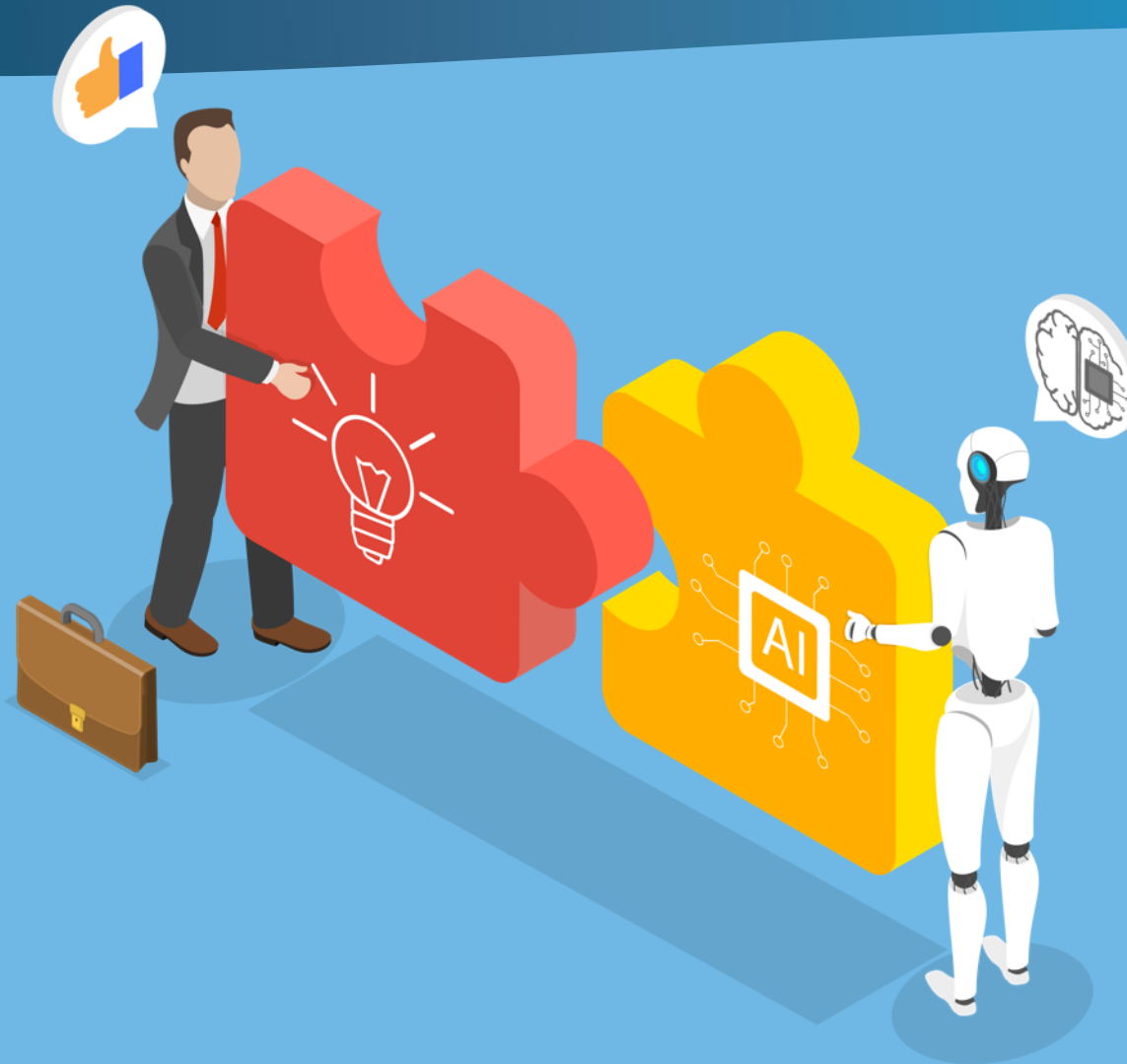
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How Can the IDB Help?

- **Future-vision workshops:** Develop a clear, shared digital roadmap.

- **User-centered design:** Build intuitive platforms and portals.

- **Institutional and solution architecture:** Optimize processes, ensure data quality, strengthen cybersecurity, validate user experiences

- **System life cycle:** Provide QA, audits, testing, and cost analysis for scalable sustainable solutions.

- **Digital capabilities:** Assess maturity and deliver tailored training for each profile.

- **Change management and communication:** Campaigns and adoption plans to ensure proper use.

- **Governance, procurement, and implementation:** Leadership committees, robust terms of reference, and technical support during execution.

Let's Start the Conversation

Thank you

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