Collaborating and Investing in Beneficial AI: A view from India

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AI Task Force Report

- Section 1: Introduction
  - What is AI ?
  - Current state of the field: International and National
  - Economic Potential and Social Impact
- Section 2: AI Grand Challenges relevant to India
- Section 3: Enablers for AI Entrepreneurship/Technology Product Commercialization
- Section 4: Ensuring Responsible use of AI – ethics and social safety
- Section 5: AI and Employment
- Section 6: Specific Recommendations to Government

Policy Questions:

1. What are the areas where Government should play a role?
2. How can AI improve quality of life and solve problems at scale for Indian citizens?
3. What are the sectors that can generate employment and growth by the use of AI technology?

Examples of Priority Use Areas

Domains of relevance to India

1. Manufacturing
2. Fintech
3. Healthcare
4. Agriculture
5. Education
6. Public Utility Services
7. Accessibility Technology
8. Environment

Health-Care

- Health-Care Data Repositories,
- Clinical Decision Support Systems

Health: Autodiagnostic Software: An Indian startup,(https://ChironX.AI), is working with hospitals and charity foundations such as the Bill & Melinda Gates Foundation to deliver AI-based solutions for early detection of diseases. ChironEye, their flagship software, analyzes retinal fundus images in seconds. It detects diabetic retinopathy, hypertensive retinopathy, age-related macular degeneration, diabetic macular edema and others. It annotates lesions and regions of interest, and assists doctors and even non-specialists to arrive at a diagnosis faster and with much higher accuracy.

Enablers

General

- – AI expertise and awareness

- – Positive Social Attitudes and Trust in AI

- – Data literacy and policies for proper use of data

- – Leveraging indigenous digital assets and use-case scenarios

Domain wise enablers (e.g. EHRs)

Risks, Ethics and Social Safety

- Disruption – jobs, competitiveness
- Ensuring responsible deployment & use
  - Transparency of construction;
  - Explainable behavior
  - Engineered for Safety and Security
  - Performance, including learning, must be auditable
  - Standards related to Human-Machine Interaction
  - Participation in international standard setting

AI And Employment

- Studied 4 areas: 'School for Machines', Advisory solutions, Health care, IT Services/BPO;

- A case study in the last domain (XLPAT) to assess micro-level impact

- Conclusion: net impact will be positive.

- RESKILLING is key; need India-specific models to study job impact.
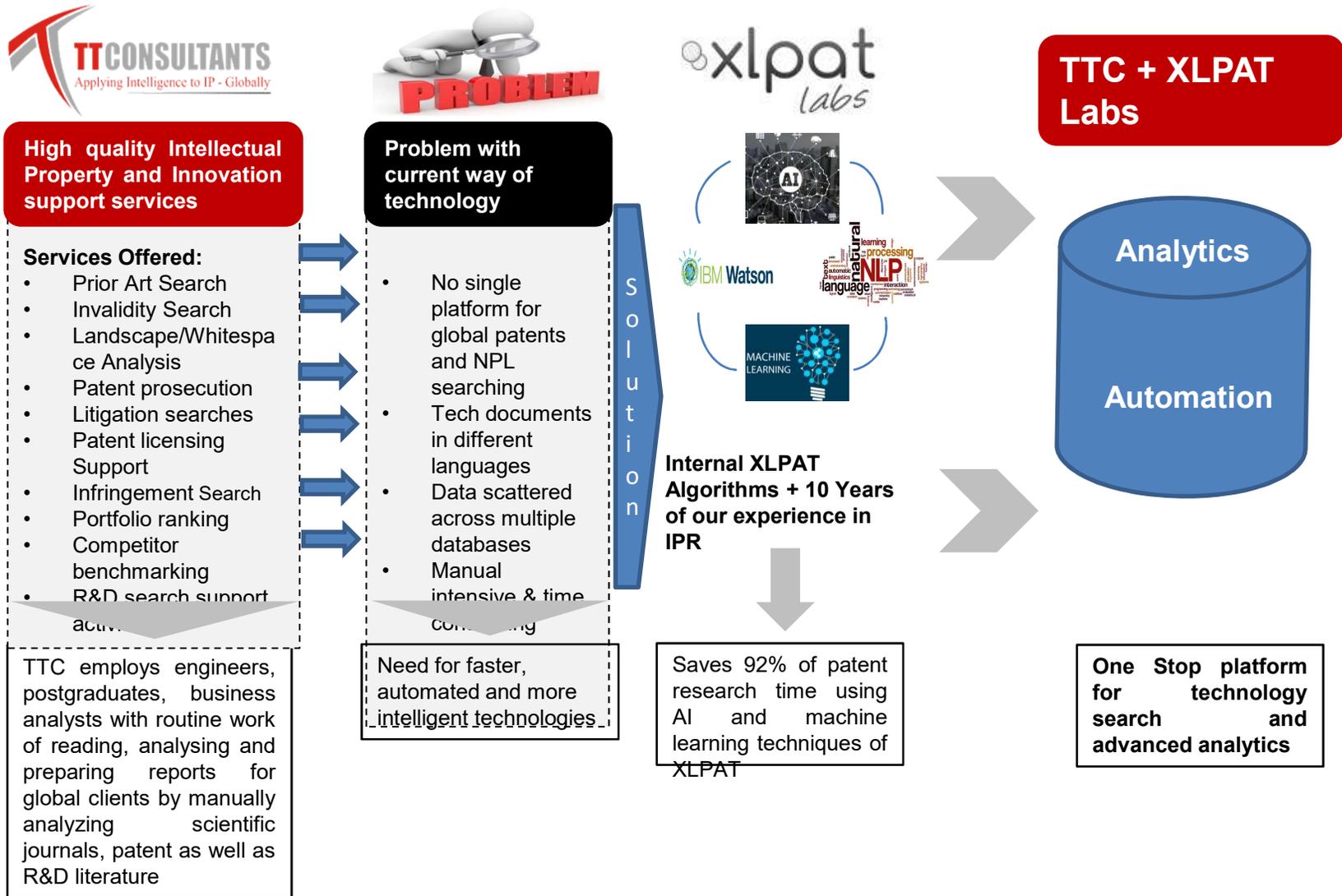
Select Recommendations

- National Artificial Intelligence Mission (N-AIM) that will act as a nodal agency for coordinating AI related activities in India, and building PPP alliances around concrete projects

- National level survey on identification of clean data clusters; data banks, exchanges & ombudsman

- AI awareness raising at scale and build up of talent through Talent Conferences, Challenge Funds and Capture The Flag competitions.

- Accelerate development and commercialization of AI based products and technology through Centers of Excellence that also offer generic AI Test Beds and large data integration facilities

Report of

The Artificial
Intelligence Task Force
(Advanced Version)

TT Consultants and XLPAT – Case Study of Man-Machine collaboration to achieve efficiency and cost savings for global clients while reskilling current workforce and hiring workers

TTCONSULTANTS
Applying Intelligence to IP - Globally

PROBLEM

xlpat labs

TTC + XLPAT Labs

High quality Intellectual Property and Innovation support services

Services Offered:
- Prior Art Search
- Invalidity Search
- Landscape/Whitespace Analysis
- Patent prosecution
- Litigation searches
- Patent licensing Support
- Infringement Search
- Portfolio ranking
- Competitor benchmarking
- R&D search support activ...

Problem with current way of technology

- No single platform for global patents and NPL searching
- Tech documents in different languages
- Data scattered across multiple databases
- Manual intensive & time consuming

Solution

AI

IBM Watson

NLP
natural learning processing language

MACHINE LEARNING

Analytics

Automation

Internal XLPAT Algorithms + 10 Years of our experience in IPR

TTC employs engineers, postgraduates, business analysts with routine work of reading, analysing and preparing reports for global clients by manually analyzing scientific journals, patent as well as R&D literature

Need for faster, automated and more intelligent technologies

Saves 92% of patent research time using AI and machine learning techniques of XLPAT

One Stop platform for technology search and advanced analytics

TTC (IP services company) employee strength increased after XLPAT (IP Software Company) introduction in 2012
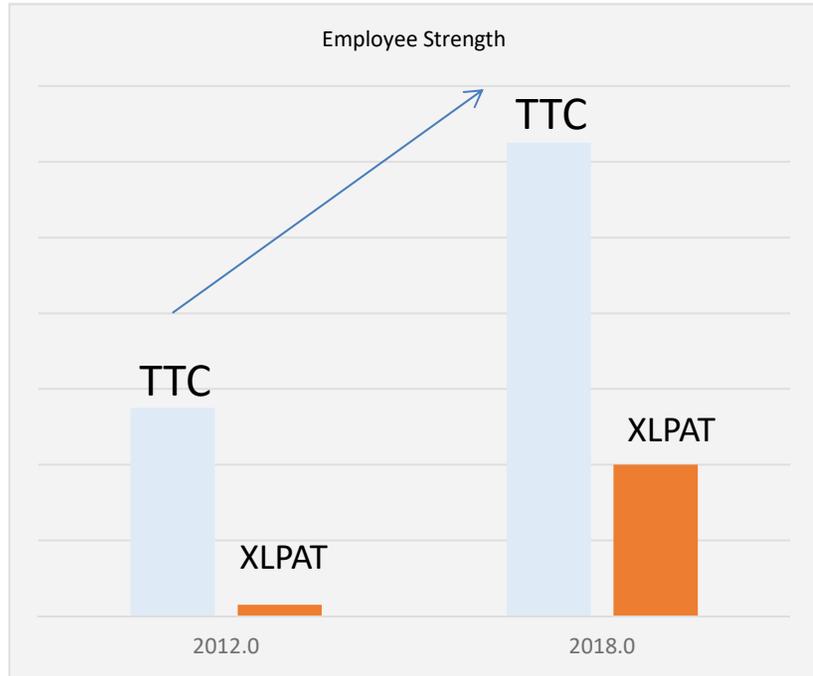
Employee Strength

With the introduction of XLPAT in 2012, employee strengths of both the companies increased due to following reasons:
- With automation, output to the client increased as scalability of operations expanded
- More workload carrying ability with automated analysis assisting the manual team leading to more productivity.

- Engineers were retrained on new skills to make them efficiently interact with machines
- With AI doing part of the engineers job, they can spend more time on innovation and research to make new products
- Engineers increased their learning capacity to upscale the client reports
- New skills set were created to fill the gaps for which XLPAT hired fresh resources (UX designers, Testing engineers etc.)
- Automation and Manual inputs resulted in higher growth rate for the organisation