Discussion outputs from DIGITAL HEALTH LEADERSHIP SUMMIT, March 2021

Topic 20: What are the best applications for AI and ML; and where is it counterproductive?

This topic was discussed by a group at the Auckland.

Auckland delegates' responses

Barriers/challenges	• Operations support AI has a more condoned value path • Data privacy around health data and information architecture • What defines the best use of AI? • What is the value proposition and desired outcomes? • When is AI counter-productive? When the use case and data clarity is inconsistent or underutilised • Counter-productive when confidence in results is low/or low explain ability • Are you 2025 ready? 4th industrial revolution • Where is AI applicable and when is Augmented Intelligence most appropriate? • Trust needs to be inherent in the systems decision and application • Internal vs client facing • Barriers to entry → humans as social norms ↓ COE to generate use cases • Data quality/confidence ID in A2/M2Inherent trust in the use of AI in healthcare
Solutions/ideas	• Statistical methods for imaging and diagnostics must compete with privacy and ethics • AI predictive capacities need to have accountability matrix • Intelligent Automation and AI need to focus on application end users • Clinical management used to streamline efficiencies among clinicians • Outpatient AI application • Key understanding of client/patient application is applied • Symptoms based predictive analytics • AI before SI – defining infrastructure • Integrating AI and ML approaches with nHIP to enhance overall wellbeing of NZers • Using AI and ML algorithms in wearables to implement preventive interventions in individual users/patients

	• Tailored and personalised approach to patient information gathering (e.g., finding cultural viewpoint)
	• Workflow and process automation for admin etc.
	• Assurance and confidence in:
	  ○ Data points
	  ○ Timelines
	  ○ Algorithms
	• Faster adoption → process oriented out vs. patient/clinical/application
	• Define the knowledge capture, automation and application
	• Condensing established knowledge bases into AI or Augmented Intelligence in healthcare processes as work forces retire
	• Variable data point identification and decision tree application or mapping
	• Use case for resource allocation and automation
	• Predictive modelling and accountability matrix inherent requirement in the sector
	• Appropriate methodology for a particular use-case (verified topic etc.)
	• Platform agnostic → review adoption
	• Explaining →applications where black box isn't an issue
	• Application through workflow and patient care
	• Adoption of Augmented Intelligence in clinical environments vs. AI use for operations
	• Use of supplementary AI to solve staff shortages and decision conformation
	• Accessibility to relevant training data for AI use cases
	• Use of interconnected data sets to be used for risk mitigation