



# Emerging Technologies, Private Equity and Corporatisation: *Examining the Ethical Landscape of Optometry in Australia*

Mr Andrew Christiansen, PhD Student, School of Law, QUT

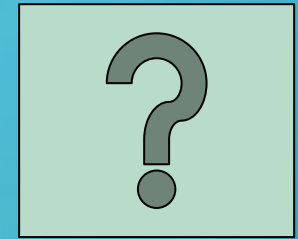
Assoc Prof Fiona McDonald, School of Law, QUT

Prof Sharon Bentley, School of Clinical Sciences, QUT

Prof Barbara Pierscionek, Faculty of Health, Medicine and Social Care, Anglia Ruskin University, UK



# THE QUESTION

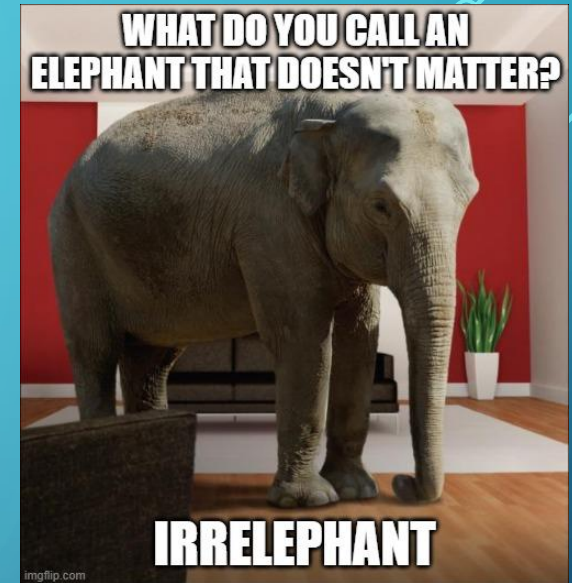


- What are the key ethical challenges facing the Australian Optometry profession?
- This study focuses on the impacts of emerging technologies, private equity investment & corporatisation
- Ethical conflicts may arise from, for example; algorithmic bias, data privacy concerns, regulatory oversight, accountability, time constraints, practitioner and patient costs, lack of training, and conflict of interest



# BACKGROUND

- To date there is scant research in these areas in Australia – almost as if (with private business investments...) it's the 'elephant in the room'
- More research exists in other countries & other Australian healthcare professions (particularly in private equity investment)





# THE PROBLEM

- Optometric practices & businesses under constant pressure to be profitable/competitive
- Growing number of private equity firms looking to invest in relatively recession-proof eye care industry - ethical issues arise in clinic & management
- Emergence of complex diagnostic equipment in particular AI models with possible algorithmic programming bias needs further investigation

# THE PROBLEM (CONT.)

- Advanced gold-standard clinical equipment placement may only be possible by private equity as costs of such diagnostic instrumentation may be beyond that of average independent or semi-independent practices.....conflicts of interest?
- External investors understandably seek return on their financial stake



# EXAMPLES

## US investor backs Australian AI innovation, Eyetelligence

by rhiannon bowman — May 19, 2023 in Business, Company updates & acquisitions, International, Local, News  
Reading Time: 3 mins read

New York-based health technology company Ascertain is investing US\$12 million (AU\$18 m) in Eyetelligence, a Melbourne-based company which uses advanced artificial intelligence (AI) technology and retinal imaging to screen for eye and systemic diseases.

The technology is based on the inventions of Professor Mingguang He, a leading clinician-scientist at the University of Melbourne and the Centre for Eye Research Australia, who was joined by commercial healthcare leader Mr Jason Sun to found Eyetelligence.

The company has developed a suite of clinically validated and regulatory approved AI-enabled products already being commercialised in the Australian, New Zealand, European, and Japanese markets. Eyetelligence's products are used within Bupa Optical and George & Matilda optometry networks in Australia.

"The three most common eye diseases – diabetic retinopathy, age-related macular degeneration and glaucoma – can be detected far earlier with algorithmic retinal image analysis. These three diseases, however, are just the tip of the iceberg," He said.

MINEWS / APRIL 18, 2024 / AUTHOR: MIVISION

## Aussie Start-up Leveraging AI for Optometry Communication

Melbourne based WorkRex has raised seed funding to develop a new customer engagement platform for optometrists, leveraging the power of artificial intelligence (AI) technology.

The company has developed a software platform, which uses a secure AI assistant to "automate 80% of the work required to ideate, design, and deliver personalised campaigns at scale, so that local businesses can engage their customers without losing the personal touch".

"Customers enjoy instant, personalised communication on SMS and WhatsApp, while optometrists benefit from increased customer orders, reviews, and ultimately loyalty," WorkRex said in a media release announcing the seed funding.

"In the backend, the assistant organises tasks for employees and keeps them updated with to-do lists."

The startup has received \$AU220,000 seed funding from venture capital company Skalata.

## New technology in optometry: AI is here to help

In the next 20 years, the technology in optometry will be represented by AI and is expected to revolutionize the field in several areas. Here are some ways AI is already helping optometry:

- **Diagnosis and treatment.** AI algorithms can analyze large amounts of patient data and provide [accurate and fast diagnoses](#) of eye diseases such as glaucoma, diabetic retinopathy, and age-related macular degeneration. AI could also help in designing personalized treatment plans for individual patients.
- **Screening and monitoring.** AI-powered optometry technology could help specialists to screen patients for eye diseases more accurately and quickly. For example, a patient could take a picture of their eyes with their smartphone and an AI algorithm could analyze the image for signs of eye disease. AI could also help in monitoring the progression of eye diseases over time.
- **Enhance patient care.** AI-powered tools could help ODs to provide more personalized and comprehensive care to their patients. For example, AI technology in optometry could help in [selecting the most suitable eyeglasses or contact lenses](#) for a patient based on their unique vision needs and lifestyle factors.
- **Research and development.** AI could help optometrists in developing new treatments for eye diseases. By analyzing large amounts of patient data, AI algorithms could identify new patterns and potential treatments for eye diseases.

## How AI could become "the optometrist's best friend"

OT speaks with the Danish company, RetinaLyze, about the benefits of artificial intelligence technology developed with optometrists in mind

Technology developed by Danish company, RetinaLyze, is helping optometrists in Germany, Spain, Switzerland and Poland to improve patient care using artificial intelligence algorithms. The company is now preparing to launch in the UK.

### Should optometrists be worried that AI will take their jobs?

**LB:** AI is not replacing the optometrist. AI will be the optometrist's best friend in the future. The optometrist still needs to gather all of the information; a good eye test remains essential.

Artificial intelligence is not capable of diagnosing yet. Our glaucoma algorithm detects very early stages of disease – the optometrist needs to decide whether a referral is needed or if they should schedule the patient for another appointment. We want to detect disease as early as possible before visual impairment.

businesswire

## EyeCare Partners Announces Refinancing Transactions, Secures New Money Investment

Business Wire

Sat, Apr 20, 2024, 6:30 AM GMT+10 · 2 min read



*Company Receives \$275 Million to Advance Key Strategic Initiatives and Launches Public Exchange Offer to Remaining Existing Term Loan Lenders*

**ST. LOUIS, April 19, 2024--(BUSINESS WIRE)--**EyeCare Partners LLC ("EyeCare Partners", or the "Company"), the nation's leading provider of clinically integrated eye care, announced today it has closed a private debt exchange with holders of a majority of its existing term loans. In addition, the Company plans to launch a public debt exchange offer to remaining lenders, which is expected to further benefit the Company through incremental debt discount capture and debt service flexibility.

Review Article | [Open access](#) | Published: 21 March 2024

## Diagnosing glaucoma in primary eye care and the role of Artificial Intelligence applications for reducing the prevalence of undetected glaucoma in Australia

Catherine Jan , Mingguang He, Algis Vingrys, Zhuoting Zhu & Randall S. Stafford

[Eye](#) (2024) | [Cite this article](#)

PATIENTS FOR PROFIT: HOW PRIVATE EQUITY HIJACKED HEALTH CARE

## Private Equity Sees the Billions in Eye Care as Firms Target High-Profit Procedures

Switzerland-based Partners Group bought EyeCare Partners in 2019 for [\\$2.2 billion](#). Another eye care giant, Texas-based [Retina Consultants of America](#), was formed in 2020 [with a \\$350 million investment](#) from Massachusetts-based Webster Equity Partners, a private equity firm, and now it [says on its website](#) it has 190 physicians across 18 states. Other private equity groups are building regional footprints with practices such as [Midwest Vision Partners](#) and [EyeSouth Partners](#). Acquisitions have escalated so much that private equity firms now are routinely selling practices to one another.

They are scooping up eye care physician practices nationwide as money-making opportunities grow in medical eye care with the aging of the U.S. population. Private equity groups, backed by wealthy investors, buy up these practices – or unify them under franchise-like agreements – with the hopes of raising profit margins by cutting administrative costs or changing business strategies. They often then resell the practices at a higher price to the next bidder.

# SHOULD THE PROFESSION BE WORRIED?



# ARE WE THINKING ABOUT THE FUTURE ?



# ETHICAL CONCERNS & CLASHES



- Australian optometry degrees prioritise optimal patient ocular & general health without prejudice
- The main bioethical principles of ***beneficence, non-maleficence, justice & autonomy*** with ***collegiality, confidentiality & consent*** are prevailing concepts
- Health professional education has traditionally less emphasis on business dealings & the potentially discordant ethical frameworks which may exist in the ‘real world’

# ETHICAL CONCERNS & CLASHES (CONT.)

- Optometry graduates or early career may find professional ethical conflicts particularly difficult
- Perhaps this is expected & understood to be personal growth journeys or maybe not considered worthy of much attention
- Inevitably healthcare ethics will clash with business ethics...
- **Several frameworks in business** have evolved to meld profit-making with ethical values of how they should be best viewed by society



# ETHICAL CONCERNS & CLASHES (CONT.)

- **Corporate Social Responsibility** (CSR):- encourages responsibility for social, environmental, & economic impacts, ↓ downsides & ↑ benefits (Jones et al., 2009) – good CSR predicts public reactions to proposed strategies & everyday dealings
- **Corporate Digital Responsibility** (CDR):- recognises unique concerns of ↑ digitalisation eg. AI, privacy & data (Wynn & Jones, 2023) - needs adequate monitoring & regulation as ethical issues will arise, including socio-economic bias



# ETHICAL CONCERNS & CLASHES (CONT.)

- **Ethical Stewardship**:- ‘...the honouring of duties owed to employees, stakeholders, and society in the pursuit of long-term wealth creation.’ (Caldwell et al., 2008), - based on virtue ethics, minor mention given to society-based virtues & rights
- **Organisational Ethics**:- based on articulation (Strauss, 1988) between Ethical ‘Justice’ (organisation-centric) vs Ethical ‘Care’ (patient-centric); also called Professional vs Relational – requires constant ethical ‘tinkering’



# RESEARCH APPROACH

- Qualitative approach – uncover potential disharmony experienced by various optical industry personnel between the ethical approaches of business and healthcare
- Identify the concerns of Australian optometrists regarding current and future ethical issues and explore their thoughts on how they manage workplace ethical dilemmas
- Personally, have a lot of experience so will need to ensure to practice reflexivity



# THANK YOU FOR LISTENING !!



## QUESTIONS?

(...that's 'Spike', and yes, he's a good boy!)

# REFERENCES

- Ethical issues in healthcare

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- Emerging technologies/artificial intelligence in eyecare

*'Optometrists' Perspectives Regarding Artificial Intelligence Aids and Contributing Retinal Images to a Repository: Web-Based Interview Study'* (Constantin et al, 2023)

*'Trustworthy AI: Closing the gap between development and integration of AI systems in ophthalmic practice'* (Gonzalez-Gonzalo et al, 2022)

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*'Corporate irresponsibility and corporate social responsibility: competing realities'* (Jones et al, 2009)

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*'Ethical Stewardship - Implications for Leadership and Trust'* (Caldwell et al, 2008)