



## Navigating Trust-Information Integrity in 2025

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SCIENCE FOR  
HEALTHIER FOOD



In 2017, 'fake news' became Collins Dictionary's word of the year

# Collins

175 YEARS OF DICTIONARY PUBLISHING

## Dictionary

of the

# English Language

*The Language Lover's Dictionary*  
including over 200 essays on literature and language



- Misinformation is false or misleading information shared without harmful intent.
- Disinformation is deliberately false information spread to deceive people.



# COVID-19 and disinformation



# Social media and misinformation



## Why did Mark Zuckerberg end Facebook and Instagram's factchecking program? Blake Montgomery

The social media giant enters a more partisan political era as its CEO pursues Donald Trump's approval



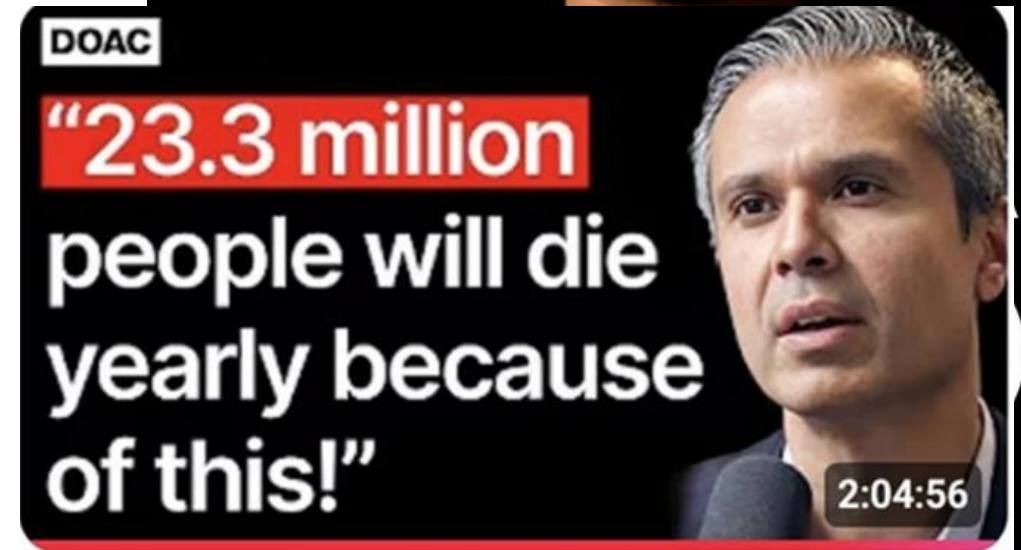
## A 'Good influence' or a 'Good influencer'

- Belle Gibson wellness influencer claiming she had cured her terminal brain cancer through healthy eating.
- Successful mobile app and cookbook called "The Whole Pantry," which was featured on Apple's App Store and even pre-loaded on the Apple Watch.
- Fraud: It was later revealed she never had cancer and also lied about thousands worth of charitable donations.



# Disinformation through popular podcasts

- cancer can be treated by food diet, rather than proven treatments
- anti-vaccine conspiracies, saying the 1968 polio vaccine was an engineered weapon



The Doctor That Got Banned For Speaking Out: "We've Been Lied To About Medication!..."



# IPSOS GLOBAL TRUSTWORTHINESS INDEX 2024

## Top five trusted professions:

Doctors



Scientists



Teachers



Serving staff at restaurants



Members of the armed forces



Source: Ipsos Global Trustworthiness Index 2024

# Research study design & interpretation

## Mechanistic studies / Proof of principle



**Cell or tissue study** (*in vitro study*) – experiments conducted on isolated cells or tissue samples within flasks, dishes, plates, or test tubes.



**Animal study** (*in vivo study*) – experiments conducted on animals that can be highly controlled.

## Observational studies / Correlation



**Cohort study** - follows a group of people (a cohort) over time, measuring factors such as diet and health outcomes.



**Case-control study** - compares a group of cases and controls, looking for differences between the two groups that might explain their different health outcomes.



**Cross-sectional study** - collect information about population of people at one point in time.

## Intervention studies / Cause & effect



**Randomized Controlled Trial (RCT)** - one group of participants receives an intervention, while a second group (the control group) receives a placebo or no intervention at all.



**Systematic reviews** – studies that attempt to combine all of the relevant studies that have been conducted on a research question and summarize their overall conclusions.

Weakest

Strongest

Andrew Wakefield – struck off medical register in 2010 after fraudulent claims regarding MMR vaccine and links to autism



# THE LANCET

The Lancet, Volume 351, Issue 9103, Pages 637 - 641, 28 February 1998  
doi:10.1016/S0140-6736(97)11096-0

This article was retracted

## RETRACTED: Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children

Dr [AJ Wakefield](#) FRCS <sup>a</sup>, [SH Murch](#) MB <sup>b</sup>, [A Anthony](#) MB <sup>a</sup>, [J Linnell](#) PhD <sup>a</sup>, [DM Casson](#) MRCP <sup>b</sup>, [M Matik](#) MRCP <sup>b</sup>, [M Berelowitz](#) FRCPsych <sup>c</sup>, [AP Dhillon](#) MRCPath <sup>a</sup>, [MA Thomson](#) FRCP <sup>b</sup>, [P Harvey](#) FRCP <sup>d</sup>, [A Valentine](#) FRCP <sup>e</sup>, [SE Davies](#) MRCPath <sup>a</sup>, [JA Walker-Smith](#) FRCP <sup>a</sup>

### Summary

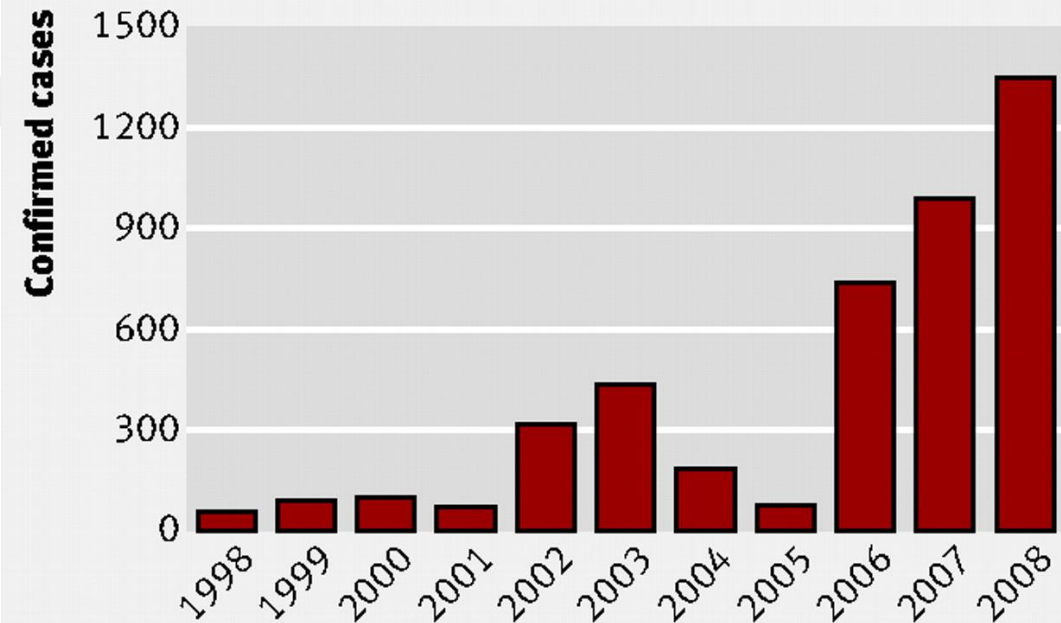
#### Background

We investigated a consecutive series of children with chronic enterocolitis and regressive developmental disorder.

#### Methods

12 children (mean age 6 years [range 3–10], 11 boys) were referred to a paediatric gastroenterology unit with a history of normal development followed by loss of acquired skills, including language, together with diarrhoea and abdominal pain. Children underwent gastroenterological, neurological, and developmental assessment and review of developmental records. Ileocolonoscopy and biopsy sampling, magnetic-resonance imaging (MRI), electroencephalography (EEG), and lumbar puncture were done under sedation. Barium follow-through radiography was done where possible. Biochemical, haematological, and immunological profiles were examined.

## MEASLES IN ENGLAND AND WALES



Source: Health Protection Agency

# The importance of reading beyond the media headline

Health

**THE IRISH TIMES**

## Whooping cough increases autism risk in infants, Trinity research finds

'Impossible to put a number' on level of risk, says TCD immunologist who supervised research



**iScience**



Volume 28, Issue 1, 17 January 2025, 111548

Article

## Neonatal infection with *Bordetella pertussis* promotes autism-like phenotypes in mice

Eoin O'Neill<sup>1,2</sup>, Lucy Curham<sup>1</sup>, Caitlín Ní Chasaide<sup>1</sup>, Síofra O'Brien<sup>1</sup>, Gavin McManus<sup>1</sup>,  
Barry Moran<sup>1</sup>, Keith Rubin<sup>3</sup>, Steven Glazer<sup>3</sup>, Marina A. Lynch<sup>2,4</sup>,  
Kingston H.G. Mills<sup>1,4,5</sup>  

# The importance of reading beyond the media headline


## Turmeric could be as effective as medicine for indigestion, says study

Natural compound found in spice may reduce excess stomach acid as effectively as omeprazole, first study of its kind finds



Original research

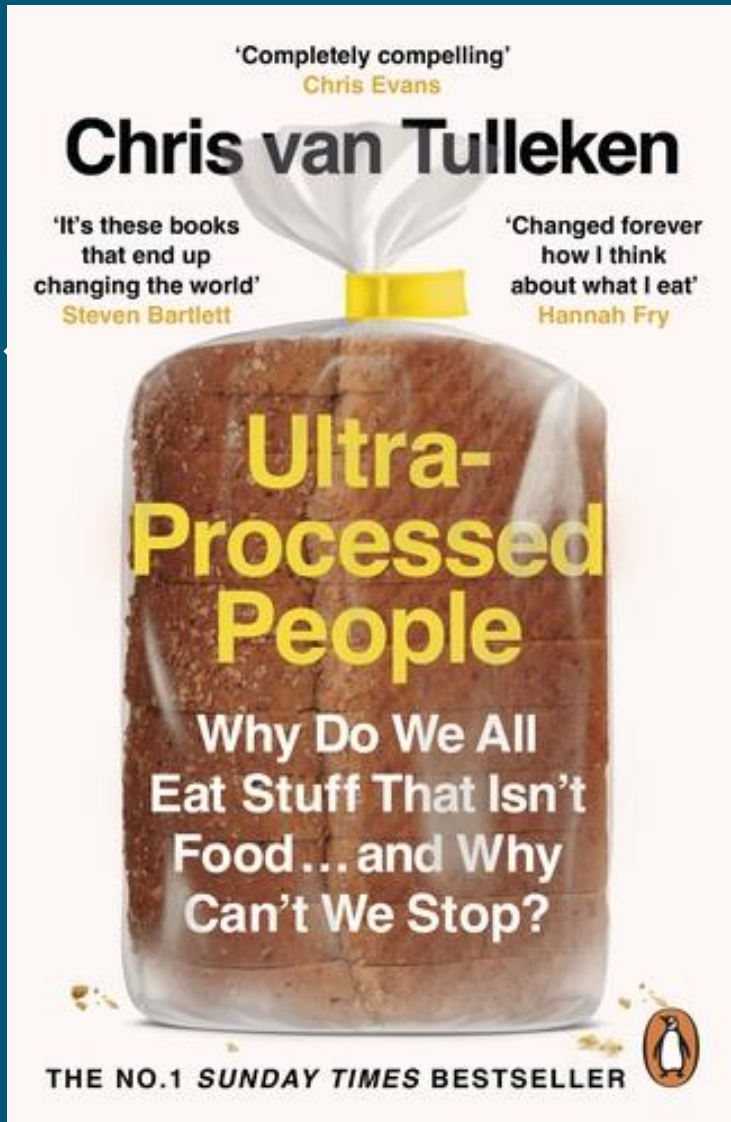
Curcumin and proton pump inhibitors for functional dyspepsia: a randomised, double blind controlled trial

Pradermchai Kongkam<sup>1, 2</sup>, Wichitra Khongkha<sup>3</sup>, Chawin Lopimpisuth<sup>1, 2</sup>, Chitsanucha Chumsri<sup>4, 5</sup>, Prach Kosarussawadee<sup>1, 2</sup>, Phanupong Phutrakool<sup>5, 6</sup>, Sittichai Khamsai<sup>7</sup>, Kittisak Sawanyawisuth<sup>7</sup>, Thanyachai Sura<sup>8</sup>, Pochamana Phisalprapa<sup>9</sup>, Thanwa Buamahakul<sup>10</sup>, Sarawut Siwamogsatham<sup>1, 2</sup>, Jaenjira Angsusing<sup>11</sup>, Pratchayan Pooniam<sup>11</sup>, Kulthanit Wanaratna<sup>11</sup>, Monthaka Teerachaisakul<sup>11</sup>,  Krit Pongpirul<sup>4, 5, 12, 13</sup>

Correspondence to Associate Professor Krit Pongpirul, Center of Excellence in Preventive & Integrative Medicine and Department of Preventive and Social Medicine, Chulalongkorn University Faculty of Medicine, Bangkok 10330, Thailand; [doctorkrit@gmail.com](mailto:doctorkrit@gmail.com)

- No placebo used
- High drop-out rate
- Self-assessment
- Conducted in an alternative medicine hospital in Thailand

# The importance of reading beyond the media headline



# Position Statement

## Processed Food

### Summary

Processed foods are commonplace within people's diets in the UK. Dependent on the composition and degree of processing, processed foods can add to, or reduce the nutritional quality of an individual's diet.

Food processing are methods and techniques that turn fresh foods into food products<sup>1</sup>. A range of operations are used, including washing, chopping, heating, freezing, packaging and the addition of ingredients, which may change the characteristics of a food; including their nutritional composition. This includes food fortification<sup>2,3</sup>. There is a growing narrative that classes all forms of processing, and in particular significant degrees of processing as less healthy or desirable, even though this does not apply in all cases.

### Key points

- The nutritional quality of foods is more important to consider than simply whether or not they are processed.
- For some products, consumers should be aware that processing will increase the content of sugar, salt, fat or other ingredients that will make them less healthy than their unprocessed equivalent.
- It is also important to recognise that processed foods and ultra-processed foods as described by NOVA category 4 are not necessarily high in fat, salt and sugar or other less healthy additives. Processed or ultra-processed foods are not necessarily unhealthy to consume, and in some cases may be beneficial, especially to certain

### Healthy eating pyramid



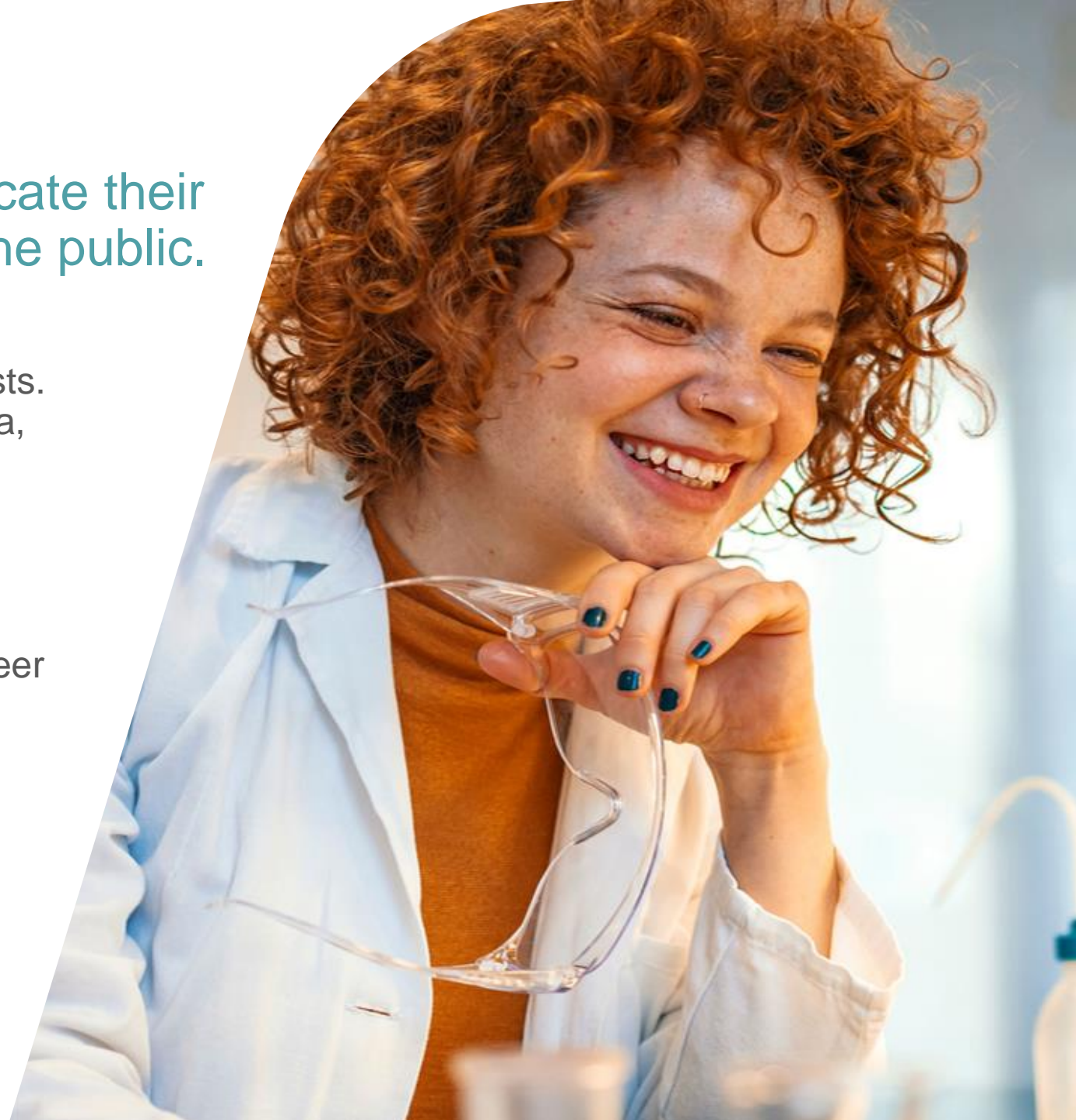
A large, diverse crowd of people walking down a city street, viewed from a high angle. The crowd is dense and fills the entire frame, extending into the distance. The people are wearing various clothing, including jackets, hoodies, and suits. The scene is brightly lit, suggesting a sunny day. The text "Impact of misinformation on Science and Society" is overlaid in the center of the image in a large, white, sans-serif font.

# Impact of misinformation on Science and Society



## Scientists have a duty to communicate their findings clearly and accurately to the public.

- Effective communication strategies for scientists. Using plain language, engaging with the media, and being transparent about uncertainties can help to build trust.
- Importance of transparency and openness in science. Open access to research data and peer review processes can help counteract misinformation



# SCIENCE FOR HEALTHIER FOOD

Translating science into  
actionable insights

1,100 scientists      University Partnerships

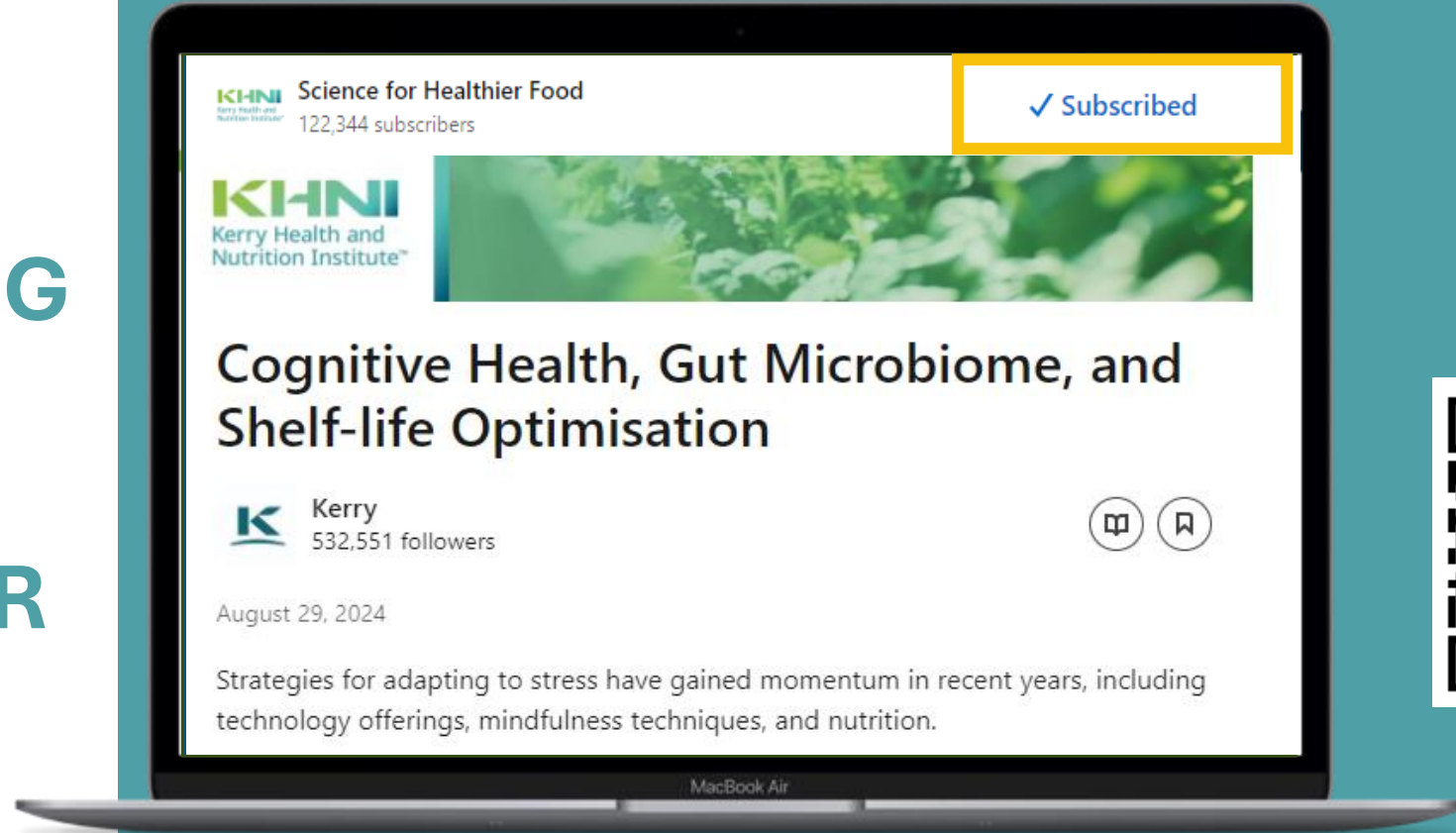
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