

Dark Patterns Across the Gambling User Journey: Evidence from an Australian Pilot Audit

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INTRODUCTION

Most gambling research treats harm as a problem of individual vulnerability. A public-health view shifts the focus to the product. It argues that harm often comes not from misuse, but from the product working as designed (Wardle et al. 2024). Interface design is central here, because it can steer users and weaken autonomy (Gray et al. 2018; OECD 2022). Operators use two main mechanisms. A dark nudge exploits a cognitive bias to push a house-friendly action, such as a pre-ticked marketing consent or a countdown timer that manufactures urgency (Newall 2019). Sludge is the opposite: it adds friction to a protective action to discourage it, such as burying account closure behind email-only support (Sunstein 2022; Thaler 2018). Together these are called dark

patterns. These concepts are well studied in privacy and e-commerce but rarely in gambling.

The question matters in Australia, which records the highest gambling losses per person in the world (Sathanapally et al. 2024), yet subtle interface manipulation falls largely outside its regulatory scope.

This paper reports early observations from the Australian pilot of an ongoing cross-national audit. The full Australian sample comprises 18 sites, 10 regulated and 8 unregulated, spanning wagering, lottery, and keno; here we draw on the regulated sites only, as the unregulated arm and full analysis remain in progress. We coded interface features against a gambling-specific taxonomy (McGarrigle et al. 2026), mapped onto a seven-phase user journey adapted from the Behavioural Insights Team (2022). We coded an instance only when we could reproduce the evidence with screenshots and navigation paths. We also measured structural friction with a Clicks Ratio (Mills et al. 2023). It compares the clicks needed to open an account against those needed to close one. A ratio below one means leaving is harder than joining. The audit is descriptive and does not estimate prevalence.

This study observed manipulative design practices across several regulated sites. In one instance of complex framing, one site defaulted to combining separate single bets into a multi-bet, requiring users to manually separate them. This bundling obscures the true odds, making the combined bet the path of least resistance.

Platforms also applied asymmetric friction to user actions. For example, one regulated site required only four clicks to open an account but significantly more effort to close it, introducing indirect pathways and alternative offers. Conversely, another platform made closure easier than registration, showing that this friction reflects a deliberate design choice rather than a technical or industry necessity. Similar asymmetry appeared between engagement and self-protection on a single platform: registration required just one click (implicitly accepting all terms), whereas setting a temporary self-exclusion required navigating a lengthy, multi-step confirmation process.

These preliminary findings illustrate that manipulative designs are embedded throughout the user journey, from betting to account management. Although these platforms are licensed, subtle interface manipulation of this kind falls largely outside the scope of current Australian regulation, which highlights clear targets for future policy. Future research will expand this audit cross-nationally and investigate similar dark patterns in video game economies, such as skin betting and cosmetic purchases.

BIO

Wenyu Zhou is a PhD candidate at the University of Sydney, researching manipulative design in online gambling interfaces. Her work critically examines how these digital environments exploit user vulnerabilities, with the goal of fostering safer and more ethical platform designs.

Jack McGarrigle is a PhD student at Swansea University. His research focuses on dark patterns in online gambling, specifically how design elements of online gambling platforms may contribute to gambling harms, with a view towards providing evidence of how safer platform choice architecture can be designed and implemented to protect consumers.

Dr Robert Heirene is a Research Fellow at the Gambling Research and Policy Unit within the Brain and Mind Centre, University of Sydney. His research focuses on using operator data to identify and prevent gambling related harms.

Simon Dymond is Professor of Psychology and Behaviour Analysis at Swansea University, Director of the Gambling Research, Education and Treatment (GREAT) Centre, and project co-lead for Gambling Harms Research UK.

Dr. Sally Gainsbury is Director of the Gambling Research and Policy Unit and Professor in Psychology at the University of Sydney. Her research has focused on understanding the impact of emerging technology on gambling and associated harms and developing and evaluating harm reduction policies and practices.

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ETHICS

This study is a site-level audit of publicly accessible gambling platform interfaces. No human participants were recruited and no real gambling transactions were conducted. The only individuals involved are the coders. In line with the study protocol, formal ethics approval was not required; the study follows principles of minimal risk and responsible research conduct.

CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

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