



# Transparency in Responsible Gambling: A Systematic Review

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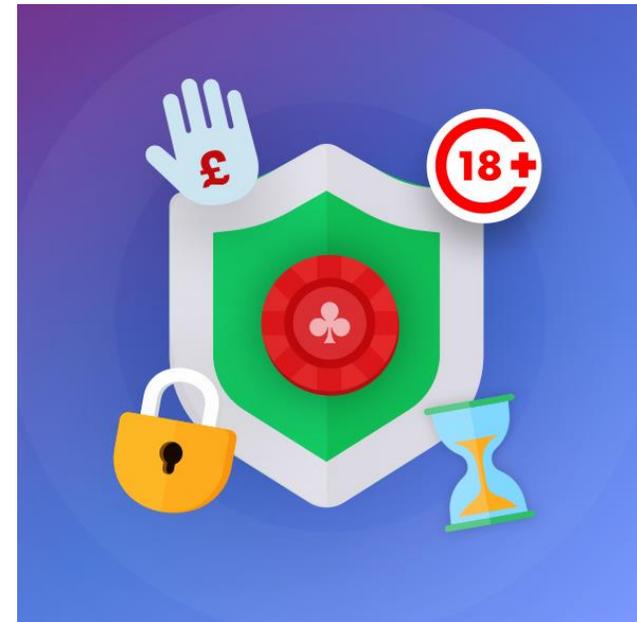
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# Responsible and Safer Gambling

Responsible Gambling (RG) is naturally associated with transparency:

- Providing explicit information about wins/losses
- Communicating information about data sharing/collection
- Informing users about data and marketing efforts
- Improving informed decision-making opportunities



Transparency is crucial to the development and implementation of responsible and safer gambling

# RG-Driven Transparency

Yet, there is a distinct lack of consensus on what transparency should involve in RG practices.

No prior research has reviewed transparency in RG empirically.

Informed by our narrative review (Wang et al., 2021) exploring transparency in persuasive technology, immersive technology, and online marketing:

- RG-driven transparency involves multiple aspects:
  - User autonomy
  - System explainability (or accountability)
  - Transparency in advertisement
- It facilitates communication and understanding of information for users to make informed choices



# The Present Research

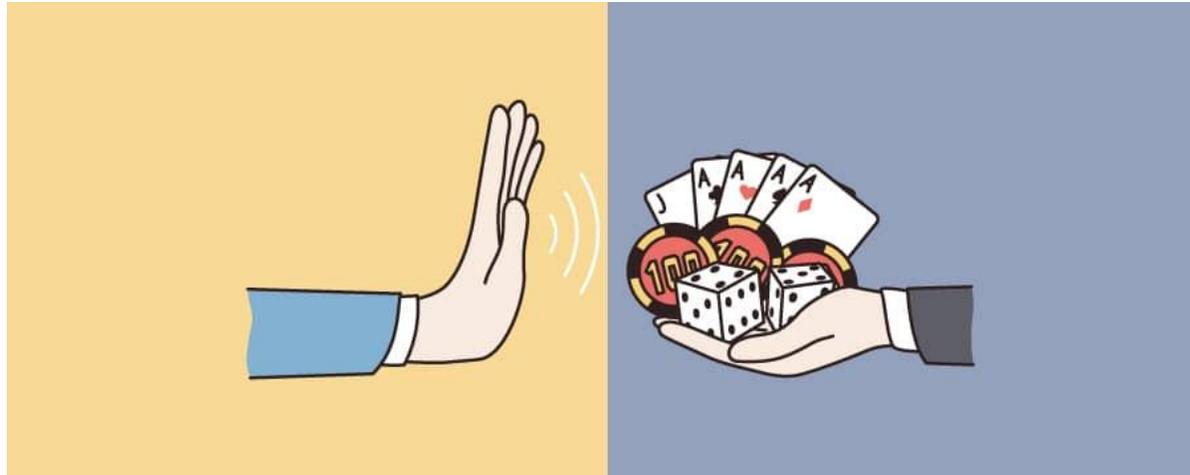
To address the lack of consensus on RG-driven transparency, we conducted a **systematic review** and **narrative synthesis** to:

- Examine evidence relating to transparency of RG practices used in the gambling industry.
- To conceptualise RG-driven transparency by categorising what is involved in or what is implied by literature for a better understanding of RG-driven transparency in games and promotion materials.
- To provide stakeholders with recommendations on relevant principles and considerations for best practices in RG-driven transparency and implications for future work.



# The Present Research

This review did not intend to examine the effectiveness of specific RG tools or strategies, or to provide prescriptive legislative or corporate guidelines.



Rather, it focused on the **fundamental aspects of transparency** that should be considered and practices by the industry for the benefit of those who gamble.

# Literature Search - Method

## **Inclusion and Exclusion Criteria:**

- ✓ Studies written in English – scope of transparency in RG practices.
- ✓ Randomised Controlled Trials (RCT) and Non-Randomised Studies (NRS) if reported intervention to RG practices.
- ✓ Literature reviews and position articles – with research question or focus on RG practices\*

\*We consider RG practices as RG strategies embedded in games on online gambling platforms (e.g., pop-up messages, normalised personalised feedback, self-exclusion) or RG information (e.g., educational messages, fairness of gaming).

- ✗ Studies without an intervention or clear research question/focus on RG practices\*
- ✗ Empirical studies on RG practices conducted purely on land-based gambling.
- ✗ Studies with under-age participants.

\*Studies that covered an intervention on gambling-related harm, assessment tools, prevalence of gambling or gamblers' characteristics were excluded. However we attempted to extract information or links to additional studies (i.e., risk factors that relate to transparent information disclosure to raise awareness and help individuals make informed choices).

# Literature Search - Method

## Search Method:

- Interdisciplinary literature was explored (i.e., psychology, behavioural science, persuasive technology, human computer interaction, gambling addiction, cognitive bias, marketing and business).
- Searches were conducted January 25<sup>th</sup> 2021 – February 9<sup>th</sup> 2021

## Keywords/Terms

- Due to lack of studies and discussion on RG-driven transparency, we introduced different aspects of transparency occurring in other literature.
- Drawing upon the narrative review (Wang et al., 2021), the following keywords (with varying terms) were used:
  - *Responsible gam\**, *safer gam\**
  - *Transparency, explainab\**, *interpretab\**, *accountab\**, *informed consent*, *informed decision making*
  - *Risk, user control, user autonomy, personali\**, *game features, promotion materials, online marketing*
  - *Online advertis\**, *social media, limit setting, warning messages, pop-up messages, behavio\* tracking*
  - *Behavio\* indicators*

## Databases:

- IEEEXplore, DBLP (computer science bibliography), Google Scholar, Web of Science, PsycINFO (EBSCO), Medline, Scopus (Elsevier), and SocINDEX (EBSCO)
- Grey literature: reports by UKGC and leading UK gambling operators

# Literature Search - Method

## **Data Extraction and Study Selection:**

- Two reviewers from multidisciplinary backgrounds (HCI and Psychology) screened titles and abstracts independently.
- Removal of duplicates.
- Full texts retrieved if either or both reviewer considered eligible.

## **Data Synthesis and Analysis:**

- Due to heterogeneity of studies (designs, RG practices examined, transparency aspects involved), this review was unlikely to support a quantitative synthesis and meta-analysis.
- A narrative synthesis was recommended (Popay et al., 2006):
  - Summarised general findings of eligible articles.
  - Inferred from the findings aspects involved/relevant/IMPLIED for RG-driven transparency
  - Conducted thematic synthesis of implications for RG-driven transparency.
  - Identified sub-themes to explain findings for RG-driven transparency.

# Results – Searches and Selection

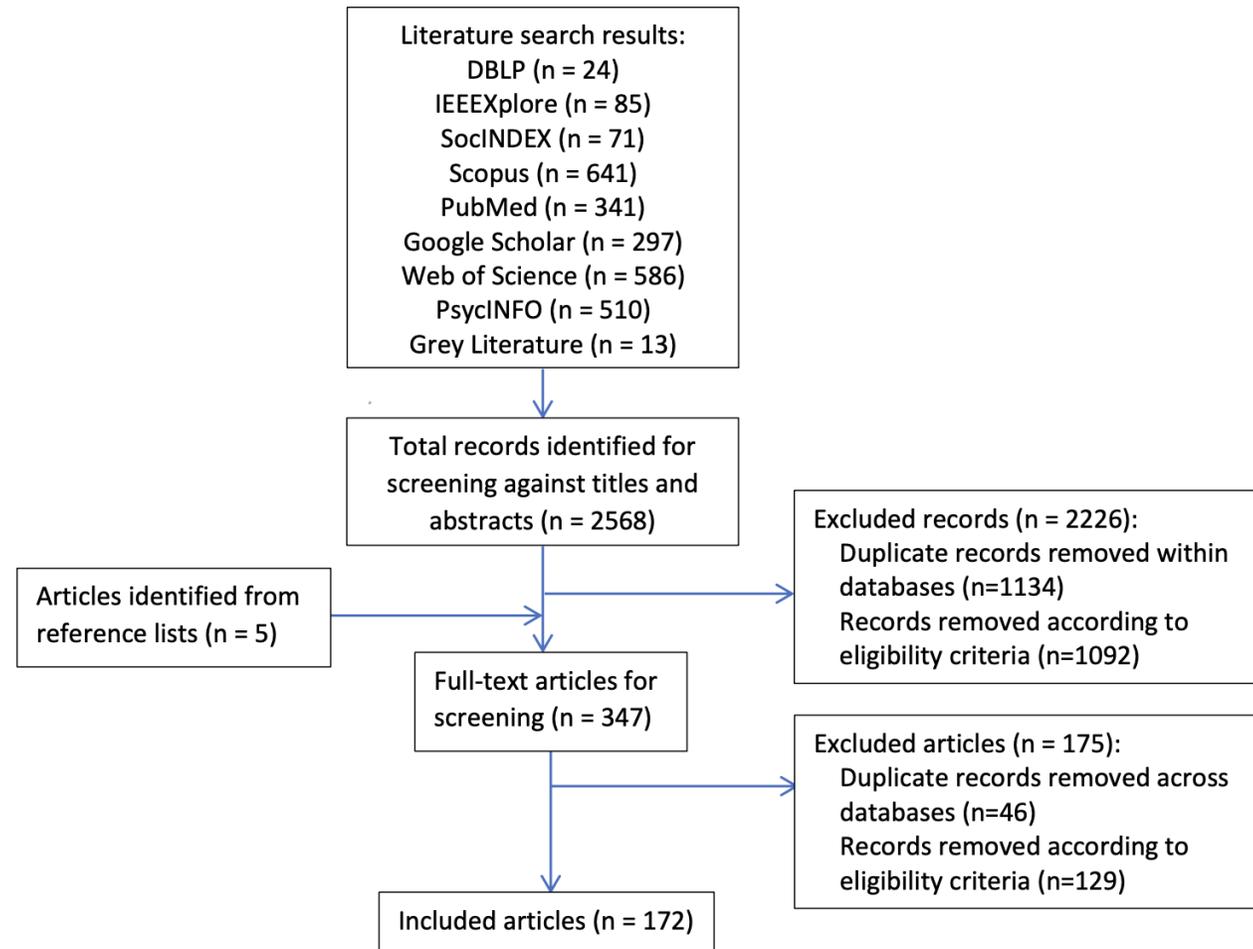


Figure 1. Flow diagram of search results and study selection

# Findings

## Systematic review identified:

- No literature systematic or non-systematic reviews of transparency in current RG practices
- Empirical studies: most focused on evaluating specific RG-strategies or tools
- Review and position articles: no examination of transparency issues
- Lack of consensus on what constitutes best practices for RG-driven transparency

## Synthesis of evidence:

- RG-driven transparency conceptualised and categorised into seven themes:
  - **Transparency of Information and Education for Safer Gambling**  
(inc. fairness of games and gamblers' fallacy, potential risks, negative consequences)
  - **Transparency of RG Tools**  
(inc. availability and accessibility of RG tools, effectiveness of RG tools, personalisation)
  - **Transparency of Data-Driven Approaches and Persuasive Technologies**  
(inc. purposes and benefits of using personal data, data usage, autonomy, privacy protection)
  - **Transparency in Advertising**
  - **Transparency of Corporate Social Responsibility and Individual Responsibility**
  - **Transparency of Research Evidence and Funding Sources**
  - **Design Considerations for Improving Transparency**

# Transparency of Information and Education for Safer Gambling

## **Fairness of games and gamblers' fallacy:**

- **Research:** Gamblers' fallacy – illusion of control and erroneous beliefs/cognitive distortions.
- **Recommendations:** Transparency regarding contingencies of game (e.g., accurate information on randomisation) is required – challenge erroneous beliefs on laws of games of chance.

## **Potential Risks and negative consequences:**

- **Research:** Underestimation of risk and various external factors (game characteristics, speed of play)
- **Discussion:** Online gambling > higher risk than land-based; potential to use behaviour tracking for RG

## **Safer gambling cognition and behaviour:**

- **Research:** Cognitive interventions (encourage critical thought/reflection on gambling) = effective tools
- **Recommendations:** RG tools should include cognitive and behavioural aspects; effectiveness of wording?

## **Boundary between gaming and gambling:**

- **Research:** Gaming and gambling are used interchangeably by industry; concerns about increased risk
- **Recommendations:** Highlight potential risks of play and exposure

# Transparency of RG Tools

## Availability and accessibility of RG tools:

- **Transparency:** Which tools are available? Which tools help to reduce problematic behaviour?
- **Accessibility:** All tools should be accessible and usable, with clear instructions
- **Information:** How to access more RG resources

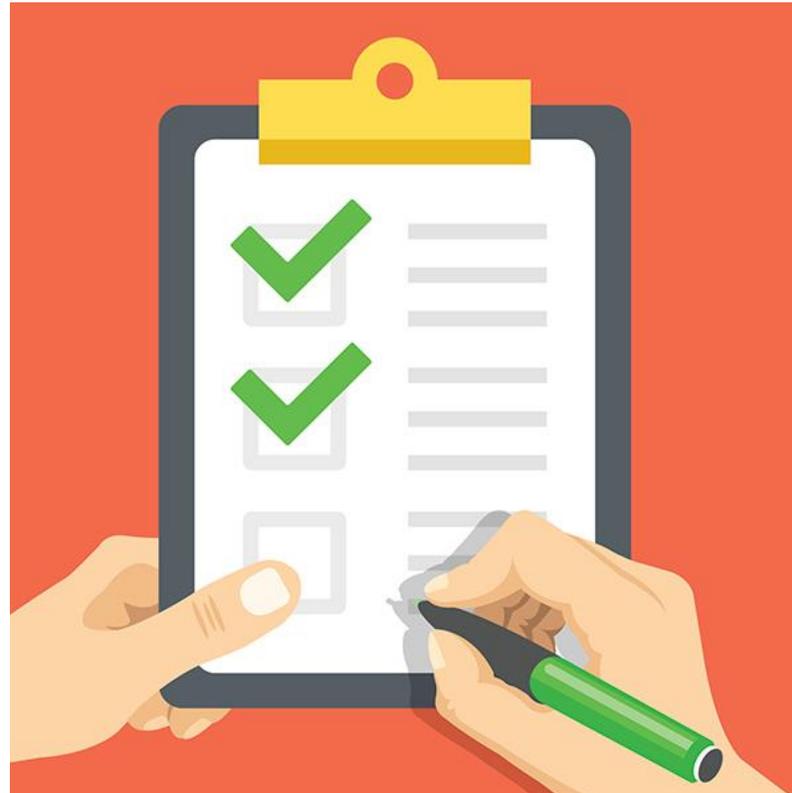
## Effectiveness of RG tools:

- **Research:** Not all RG tools are used by customers – some considered not relevant for non-PG players
- **Discussions:** Effectiveness of RG tools vary among users - need more longitudinal research
- **Recommendations:** More efforts needed in promotion of RG tools and research studies to assess and improve their utilisation and effectiveness.

## Personalisation of RG tools:

- **Research:** RG strategies vary among players and demographics
- **Recommendations:** RG strategies should be personalised to maximise effectiveness; targeted RG tools and information; personalised RG strategies per types of game (e.g., pop-ups on continuous gameplay)

# Checklist for Best Practices in RG-Driven Transparency



# Checklist

## **Providing educational information:**

- Genuine probabilities of winning (rather than exaggerated return rates) should be provided
- Industry should deliver educational content to target gamblers' misperceptions of gameplay
- Users should be offered information on potential risks related to gambling
- Risk factors that lead to PG should be made transparent to facilitate user reflection and decisions
  
- Educational content should target cognition and behaviours to promote RG
- Information about relationship between gaming and gambling and risks should be transparent
- Online gambling information design – changed to avoid illusion of control and erroneous beliefs
- RG information should be displayed in an accessible manner to facilitate visibility and understanding

## **Promotion of RG tools:**

- Information on how to access and use RG tools and their effectiveness should be present
- Personalised RG strategies to meet needs and requirements of different users/groups

# Checklist

## **Where personal data needs to be collected:**

- Transparency on purposes of data collection (e.g., marketing) and consequences of use
- Users should be given unambiguous information about data processing and sharing policies
- Informed consent should be obtained for described usage of data with full understanding
- Information about right to access and delete data should be made accessible

## **Gambling Advertisement:**

- Transparency on game fairness without misleading information about exaggerated probabilities of winning
- Reconsideration of practices and rules about advertising (e.g., volume of internet promotions)
- Protection from gambling promotion for minors and at-risk users

# Checklist

## **Gambling policy and CSR**

- Division of responsibility among government, individual and industry made transparent
- Access to right tools and policies to facilitate individuals' safer gambling behaviour
- Creation of policies for a safe gambling environment (CSR take a proactive role)
- CSR reporting and assessment made clear and actionable
- RG policies to be assessed externally and independently

## **Future research and funding sources:**

- More longitudinal research needed to evaluate effectiveness of RG strategies and practices
- Research findings made clear and disclosed together with funding sources
- More research needed to understand how game design may be associated with RG content

# Conclusion

We found limited research regarding transparency issues in the RG domain.

- Most empirical studies were focused on the effectiveness of a specific RG tool or intervention
- Most review or position articles did not directly explore transparency issues
- No systematic or non-systematic reviews of transparency in RG practices were found

We conceptualised RG-driven transparency by providing seven themes that were identified from this review and should be considered for improving transparency in RG practices.

This work serves as a reference point for stakeholders (operators, regulators, researchers, users) to facilitate a better understanding of what constitutes RG-driven transparency in games and promotion materials to drive best practices and agenda for future work.

# Conclusion

We recommend professionals from multidisciplinary backgrounds to collaborate on the design, implementation, and assessment of RG information, tools and interventions in a way that can facilitate long-term sustainable positive behaviour change.

Stakeholders should collaborate to advance transparency in RG practices and policies.

Future research is required to empirically validate this checklist of RG-driven transparency.

Practicalities and detailed guidelines for gambling operators on how to embed RG-driven transparency into games and promotion materials are required with efforts from multiple stakeholders in future.



# Any Questions?

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