



SUMMARY REPORT

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# Trial for a Repository for Industry Approaches to Customer Interaction in Relation to Safer Gambling

APRIL 2020

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## About Us

GREO is an independent knowledge translation and exchange organization with almost two decades of international experience in generating, synthesising, and mobilising research into action across the health and wellbeing sectors.

GREO helps organisations improve their strategies, policies, and practices by harnessing the power of evidence and stakeholder insight. Services we offer include sourcing and synthesising evidence, creating knowledge and education products, facilitation and stakeholder engagement, data and knowledge management support, evaluation, and applied research.

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# Executive Summary

A wide range of research to inform safer gambling initiatives is being conducted by gambling stakeholders, academics, and the operators themselves. With multiple contributors to this body of evidence, it is challenging to determine progress, avoid duplicating efforts, and identify a representative framework to address knowledge gaps. As part of the *National Strategy to Reduce Gambling Harms*,<sup>1</sup> gambling operators are required to collaborate to prevent harm and facilitate safer gambling. The Gambling Commission has indicated its commitment to raising standards by facilitating industry collaboration, in order to identify and share effective approaches, lessons learned, and best practices for customer interaction.

*Customer interaction* refers to the way in which gambling operators identify and interact with people who are believed to be at risk of or experiencing gambling-related harm. For regulatory purposes, all gambling operators must have systems in place that allow them to identify customers at risk of or experiencing gambling harms. On October 31, 2019, newly strengthened customer interaction requirements in the Gambling Commissions' Licence Conditions and Codes of Practice<sup>2</sup> (LCCP) came into force for both remote and non-remote operators. The document, *Customer interaction — formal guidance for remote gambling operators*,<sup>3</sup> outlines the increased emphasis of Social Responsibility (SR) Code 3.4.1 on customer identification and interaction outcomes, assessing the efficacy of an interaction on the individual consumer, and the effectiveness of the operator's overall approach. A corresponding document, *Customer interaction — formal guidance for premises based operators*,<sup>4</sup> is available for non-remote operators as well.

To respond to the formal guidance provided, a repository platform was created as a trial for gambling operators to collectively share insights and knowledge in the area of customer interaction. The repository presented an opportunity for operators to learn from one another with the goal of enhancing customer interaction strategies, and as a way to better understand operators' activities in this area to help address knowledge gaps. The aim of the trial repository was to help test and build a digital

infrastructure for industry collaboration and knowledge exchange, so that an informed decision could be made about whether a repository is worth pursuing at a broader scale. In November 2019, GREO scoped and developed a trial platform for operators to share information about customer interaction. [GREO](#) is an independent knowledge translation and exchange organisation with experience in generating, synthesising, and mobilising research across the health and wellbeing sectors. As part of its work programme, GREO provides support to the *National Strategy to Reduce Gambling Harms*,<sup>1</sup> primarily in the area of 'Research to inform action'.

The trial repository project was guided by two objectives:

- 1 To trial the provision of a platform where industry could share information relevant to customer interaction; and,
- 2 To review such information so that an informed framework for future work can be shared with industry.

Requirements for the platform included a simple process for submission, operator anonymity, and a unique username and password so that operators could view others' submissions.

In October 2019, following an agreement with GREO, the Gambling Commission informed gambling operators about trialling a repository. This was followed by an invitation in late November 2019 to 68 operators of remote gambling sites to participate in the trial repository project. Operators were given information about the project, including the priority areas of identification, interaction, and evaluation. Prompts in the form of leading questions were provided to help guide the selection of materials to submit. Examples of outputs were also listed. When depositing materials, operators were also asked to submit a Terms of Deposit and Use Agreement that covered the responsibilities of both the operators and GREO. The trial repository was open for operators' submissions for approximately two months.

After an initial stocktaking of operator attributes, the submitted materials were coded into main topics and subtopics. We employed a qualitative description approach,<sup>5</sup> so that the information is summarised in a way that participants would agree accurately reflected their policies, practices, and resources that were regularly employed.

## Stocktaking

**Response rate.** Twenty-six of 68 operators (38.2%) that were approached to take part provided usable materials. The response rate was encouraging, which suggests that there is an interest in being able to share customer interaction information and to learn from what others are doing.

**Gambling forms.** There was considerable diversity among operators who participated. They represented a range of gambling forms, including casinos, sports betting, poker, bingo, and lotteries. Twelve operators offered three or more types of gambling, nine offered two types, and five offered a single gambling form. Twenty operators were online only and six had both online and land-based operations.

**Company information.** We were limited to what could easily be obtained by visiting company websites or through the Public Registry of the Gambling Commission.<sup>6</sup> Six companies were publicly traded, 17 were privately owned, one was private by guarantee and the other was “private but exists with public portfolio”. Gross Gambling Yield and number of employees were unavailable, but the Gambling Commission was able to provide information about the size of each operator invited to participate in the trial repository. Due to data privacy restrictions, parameters for assessing size were unavailable. Fifteen companies were categorized as large businesses, 10 as medium, and none were identified as small. The parent company of one operator could not be identified so business size is unknown. Employees who sent the submissions represented several departments including Responsible/Safer Gambling, Compliance, Technical/Analytical Services, Legal, and C-Suite (i.e., senior executives).

**Submission variation.** Operators varied in terms of the breadth, depth, and applicability of submissions to customer interactions. This was not unexpected — we were interested in the extent to which operators would participate and what form their submissions would take rather than in the consistency of materials. Submissions ranged from a single page with brief, general answers in each topic area to 42 pages complete with in-depth answers, research findings, PowerPoint presentations, and links to external resources. We assessed the relevance of submissions to customer interaction by reviewing the number of codes applied during the line-by-line coding process to the total number of documents contributed by each operator. *Applicability*

refers to being able to apply the findings to situations beyond the original setting, and when others might see them as meaningful and applicable to their own situations.<sup>7</sup> Although this approach has limitations, it was the most systematic way to assess document relevance. More than half the operators had submissions that had either some or moderate applicability. Nine were very or highly applicable. Two had low applicability due to their focus on responsible gambling practices generally, rather than customer interactions specifically.

## Findings

When reviewing the findings, it is important to remember the diversity of submissions. We assumed that topics mentioned multiple times were important, but we cannot conclude that when a process was mentioned less often, it was not addressed by most operators in practice. It could be that operators were limited in what could be shared, even in an anonymous forum. Or, it could be that those who provided limited feedback may have reported approaches they deemed critical only and we cannot conclude that they were not using additional strategies. It is also worth bearing in mind that only medium and large size businesses participated; therefore, the findings may not reflect policies and practices of the smaller operators.

## Identification

Operators used a variety of approaches to identify customers at risk of or experiencing harm from gambling, as outlined below.

**Risk identification algorithms** that included multiple financial, behavioural, and temporal indicators to flag customers who could be at risk of or experiencing gambling harms, were the most used means of identification. This was consistent for all operators, regardless of primary gambling form, or any other attributes. The choice and number of factors included in the algorithms varied by operator. Some were developed internally, while others seemed to rely on risk markers recommended by external sources, but most used a combination of externally and internally derived

risk markers. Typically included in the algorithms were metrics related to financial data, behavioural patterns, temporal factors, big wins, use of responsible gambling (RG) tools, and markers associated with people prior to self-excluding, although not all operators agreed that self-exclusion markers were fail-safe.

**Manual approaches** were also used by operators, although much less often, to ensure their markers were identifying customers at risk. Such approaches valued input from customer facing teams to assess whether an interaction was needed. Manual reviews of algorithms were also undertaken to assess the effectiveness of the metrics.

**Communicating with customers** and paying attention to content and tone also assisted with identifying customers at risk. Content could include sentences suggesting a gambling problem through use of words or phrases such as “addiction”, “out of hand”, “stressed”, “rigged game”, “financial problem”, etc. Tone could be an indicator when customers were rude, aggressive, distressed, panicked, etc., or generally seemed abusive to staff.

**Knowing the customer** was important when monitoring behavioural changes and assessing other factors associated with risk. Although it could be challenging in remote operations, some operators found ways to learn more about their clientele. Some reviewed documentation that would indicate financial difficulties or health problems. Others accessed open source information (e.g., social media, news articles) that indicated whether someone might have experienced a negative life event.

**Research** was regularly conducted in-house by some operators to enhance risk identification algorithms. Others relied more upon research that had been conducted externally or looked to external sources such as PricewaterhouseCoopers (PwC) to guide the development of identification resources. In some cases, research projects were undertaken in collaboration with academics and consultants.

**External resources** were used by many operators, who provided names of documents, data sources, consultants, and other stakeholders to whom they regularly turned for information (see Appendix A). They also attended conferences and training courses offered by other stakeholders. Some used government data to benchmark prevalence rates, and others consulted academic literature and reports prepared in other jurisdictions.

**Guidance and regulation** was mentioned by almost all operators, as was the importance of adhering to the Gambling Commission's Licence conditions and codes of practice, Social Responsibility Code 3.4.1.<sup>3</sup> Many also made use of resources published by the Gambling Commission to enhance their understanding of customers at risk and the overall gambling landscape in Great Britain.

**Identification training** was often part of broader responsible/safer gambling programmes. Some operators submitted slides for on-board training sessions and follow-up courses. Others outlined workshop topics offered to employees such as how to recognise markers of harm, problem gamblers, and pathways to help, and how to prioritise safeguarding.

## Interaction

Operators were asked to share how they decide the best way to interact with customers identified as at risk of or experiencing gambling harms. Findings were grouped into five main categories.

**Drawing upon internal resources** refers to the use of in-house reports, account monitoring, research, and employee experiences that form a basis for interaction with customers identified at risk. Many reported responding to risk-level flags generated by algorithms. The flags signalled the appropriate type of interaction. Many had additional internal reporting systems like interaction monitoring, behavioural analytics, and examining customer engagement across multiple communication formats to assess success rates associated with different interaction approaches.

**Guided by external expertise** refers to accessing outside resources such as reports, consultants, stakeholder organisations, and academic research that had been conducted to determine how to best interact with customers at risk. Many operators singled out GamCare training as especially helpful. Others mentioned that the Gambling Commission guidance document, which they are required to take into account, *Customer interaction — formal guidance for remote gambling operators*,<sup>3</sup> was useful. There was almost no mention of the academic literature, which is perhaps not unsurprising given the lack of scholarly research in this area.

**Communications strategies** received considerable attention in operators' submissions. Modes of interaction were associated with customers' risk levels. They varied among operators, but almost all began with a 'light touch' of automated pop-up messaging triggered by the algorithm at low risk levels. They also used live chats. Email messages were usually reserved for when behaviour escalated. At higher-risk levels, communication more often took place by telephone or, in some cases, in person for VIPs. Some operators shared techniques designed to increase customers' self-awareness. Operators paid attention to the tone of language used during interactions, emphasising the use of positive terminology and an informative and supportive approach. Content was just as important, recognising that informative, pleasant interactions more often resulted in successful outcomes.

**Customising interactions** was reported by a few operators, recognising that a one-size-fits-all approach to interactions does not always work. Although the decision-making process and modes of interaction used by some operators appeared to be fairly standardised, especially at lower risk levels, a few saw the need to be flexible in approach and that different types of interaction could be more effective with different types of gamblers.

**Interaction training** could be conducted in-house, externally, or in combination. Training progressed in stages and along regular schedules. A stepped approach was used most often, with increasingly specific training for customer facing staff and those in positions of responsibility. Training was frequently delivered by employees who had themselves received more intensive training, often from GamCare. A few operators reported their interaction training processes in detail. It is not known whether this level of attention to training is typical across businesses, or if these operators placed a higher value on customer interaction training than others.

## Evaluation

Evaluations of interactions took place at two levels: individual and organisational. Some operators gave detailed accounts of evaluation processes that demonstrated highly evolved systems, whereas others summarised primary activity areas only, and a few shared even less information when describing their approach.

**Administrative practices** were outlined by several operators in varying levels of detail. In general, evaluating customer interactions depended upon keeping clear records of interactions so that accounts could be monitored following the interaction. A few submitted their evaluation workflow, describing how a case progressed from the time of identification to eventually sharing evaluation outcomes to enhance staff learning. There was considerable variation in evaluation scheduling, ranging from continuously to periodically. Some operators also spoke of quality assurance processes, although this was not well defined, which raises questions about the outcome criteria against which quality is assessed.

**Monitoring and analysing** accounts for changes in behavioural and financial metrics, reductions in problem gambling rates, and correlations of behaviour changes with interactions are typical approaches to evaluating customer interactions. Many operators also see the uptake of RG tools as a prominent factor when deciding whether an interaction was successful.

**Communicating with customers** was valued by many operators since it allowed direct feedback from customers about their experiences and perceptions of the interaction. This information was not only useful for enhancing interaction techniques, it was also motivating for staff to learn that customers were pleased and had changed their behaviours. Unsuccessful interactions provided an opportunity for learning. A few operators commented on processes for change to improve interactions and, again, the need for flexibility to address individual customer differences.

**Seeking continuous improvement** in evaluation techniques was evident in some of the submissions where evaluation was framed as evolving and dynamic, rather than as a static process. This was mentioned mostly in reference to the organisational level, although some operators reported on a feedback loop for customer interactions that could allow for continual improvement. A few operators were involved in in-house research activities to enhance evaluation.

**Accessing external resources** was not mentioned by many operators. Although some identified external resources, such as third-party compliance experts and specialist training, it seemed more common to refer to documents developed by stakeholders. No operators mentioned referring to academic literature but, again, it is scarce in this area.

**Evaluation training** for customer interaction received little attention in operators' submissions, especially when compared to training for identification and interaction.

## Discussion

The project objectives were to trial the provision of a platform where industry could share information relevant to customer interaction; and, to review the information submitted so that an informed framework for future work can be shared with industry.

### Platform assessment

The trial repository is a preliminary attempt to address the increased emphasis in the revised LCCP on (a) customer identification and interaction outcomes for people at risk of or experiencing gambling-related harms, (b) assessing whether interactions are successful at the individual level, and (c) the effectiveness of the overall approach of the operator. GREO developed a basic repository framework for sharing submissions to test the response from operators, as well as a protocol to maintain operator confidentiality. After entering a unique username and password, operators could access all submissions and a document summarising external resources. There were no search functions, and certainly much could be done to improve its functionality if the repository were to continue. Once it was set up, the platform required little involvement from GREO staff. We received a few questions from operators about submissions, which were quickly and easily answered, but not about the platform itself. Apparently, they were able to access others' submissions without difficulty.

There were no expectations regarding the quantity or quality of information that would be submitted; rather, we were interested in assessing whether operators

would contribute and if the submission process was easy to follow. The response rate of 38.2% indicates that operators are both willing to share information, and that there is an appetite to learn from one another.

### **Robustness of submissions**

For the trial repository, we were mainly interested in seeing whether operators would participate and, if so, what types of information would be submitted. Efforts could be made in the future to create more consistency between operators in the depth and breadth of their submissions, by providing examples and offering more detailed instructions. Operators varied both in size and the type of gambling they offered. There were almost no consistent patterns in relation to size, submission quality, type of ownership, or whether the business was online only or had land-based operations as well. Most operators provided submissions rated as having some or moderate applicability, and nine were either very or highly applicable.

Of the three areas for which operators were asked to submit information, identifying customers at risk of or experiencing gambling-related harms was, by far, the most thoroughly addressed. Most indicators of at-risk behaviour used in algorithms and in manual techniques adhered to the general categories outlined by gambling researchers: frequency, intensity, variability, and trajectory. Operators were well-versed in identification, even though some of the practices, such as a reliance on markers derived from people who had self-excluded, have limitations.

Interaction received less attention than identification, but enough information was provided to suggest areas of strength and where gaps might exist. Operators were largely reliant on automated responses for low risk customers and changed interaction modes as risk levels escalated. The need for customised interactions, on occasion, was recognised. Operators often accessed external resources including materials and training provided by stakeholders, consultants, and the Gambling Commission.

Evaluation received the least attention. Among operators, there was substantial variability in processes, scheduling, and outcome metrics. Many put considerable stock in the uptake of RG tools to measure success, although there are limitations

to this approach. Qualitative information from customer interactions appeared under-used, with a much greater emphasis on behaviour patterns and financial information available through customer accounts.

Training for identifying and interacting with customers at risk of or experiencing gambling harms was well developed. Training for evaluating interactions was mentioned much less often and is likely an area where more could be done.

As a recommendation for value that could be rolled out later, submissions may be enhanced by asking operators to share information about what does not work well, since that is often equally informative and provides a basis for comparison. What remains unknown is how resources are allocated by operators to each area of customer interaction. It is unlikely that they are equal for each area, but all require sufficient staff time and a budget that allows customer interactions to proceed effectively.

## Feasibility for expansion

Operators' level of participation suggests that there is an appetite for sharing with and learning from other operators regarding customer interaction. The variation of submissions in the breadth and depth to which each of the topic areas was addressed suggests that knowledge of identification, interaction, and evaluation is uneven. There is potential for a regularly maintained customer repository to help fill the knowledge gaps.

The repository platform had a simple structure. Greater functionality, including search options, would enhance it substantially. It would be necessary for whoever has responsibility for the repository to proactively pursue submissions at regularly scheduled intervals. Staff time will need to be allocated to updating and to anonymising submissions. Evaluations should be conducted regularly to ensure operator needs are being met. Whether a permanent repository is feasible will depend largely on who takes responsibility for keeping it current, whether there are adequate resources to do so, and how active participation will be promoted.

## Recommendations

This report concludes with a set of recommendations, recognizing that the feasibility depends on available resources, strategic plans, and corporate and research priorities. These are highlighted for further consideration.

### Enhancing submissions

- 1 *Develop a template for consistency of operator submissions.* A template could help to streamline submissions to allow greater consistency between operators in the focus of materials and, potentially, the depth of information provided. The template would be accompanied by a purpose statement with clear objectives for information sharing and would require a standard list of variables and the same criteria for submission by all operators, regardless of size.
- 2 *Share external resources.* Identifying and/or providing reports, stakeholder services, information about consultants, and recent research findings would be relevant to all operators, particularly in areas like evaluation where internal resources appear to be limited.
- 3 *Encourage submissions from businesses of all sizes.* Greater representation in operator size would likely lead to more comprehensive information in the repository. Information related to customer identification is likely similar, but there may be differences in interaction and evaluation processes due to business size. Insights regarding how and why these differences exist, and how to use them for optimal interactions would be useful. It could also be that differences may be due not only to size, but also to the resources deployed to address these issues. More information about resource allocation and other constraints is needed.

## Advancing knowledge of identification, interaction, and evaluation

### Identification

- 4 *Continue refining algorithms.* All operators used algorithms to identify customers at risk of or experiencing gambling harms, and there was great variation in the number of metrics as well as the sources from which they were drawn. More research is recommended to refine algorithms by taking a broader range of factors into account.
- 5 *Expand metrics beyond markers of self-exclusion.* Some operators relied heavily on data from the accounts of previous self-excluders to support their risk identification algorithms. Understanding that there are multiple factors that can encourage or discourage self-exclusion, further exploration of useful techniques for identification and the limitations of relying on self-exclusion could be helpful.
- 6 *Make greater use of customer communication data.* About half of the operators reported using customer communication data to some extent, but there could be more opportunities to integrate this valuable, qualitative data. Both content and tone of communications with customers can be integral to the early identification of at-risk behaviour. Operators could monitor customer communications more closely using a combination of automated and manual techniques. The most expedient and effective methods could be assessed through directed research programs.
- 7 *Incorporate manual techniques.* Large databases of customer accounts encourage reliance on automated responses to flag at-risk customers. More information is needed about manual techniques and how to incorporate qualitative information related to employees' experiences into successful identification processes, understanding that there may be limits to staff and resources that could be allocated to manual interactions.

## Interaction

- 8 *Explore opportunities to become more interventionist* at different risk levels. Many operators seemed to have prescriptive approaches to interaction depending on the customers' risk level. It could be useful to examine whether stronger, more interventionist approaches at different risk levels would produce different outcomes and, if so, why and with whom.
- 9 *Consider demographic information* when interacting with customers. Fewer than one-quarter of the operators referred to demographics when identifying or interacting with customers. Further research could establish whether interactions are perceived differently or are more successful depending on specific demographic factors so that approaches to identification and interaction can be modified accordingly. Certain information is subject to privacy laws, but surveys of customer bases would allow players to voluntarily share this information if they desired.
- 10 *Consider multiple ways of interacting.* When describing interaction processes at different risk levels, operators appeared to use a single interaction type (live chat, pop-up message, etc.) that changed as behaviours escalated. It would be beneficial to examine whether multiple approaches are more effective and, if so, which combinations and at what risk level(s).
- 11 *Support flexibility and customisation.* The 'one size fits all' approach meant that interactions did not always work. A better understanding of what flexibility and/or personalisation looks like is needed. With whom is it most effective, and when does it need to be employed?
- 12 *Adapt interactions to customer base and gambling form.* Some gambling forms are more likely to attract a specific customer base, and it may be that, in general, these customers respond differently to interactions designed for a broader customer base. Some operators include gambling form in their at-risk algorithm for identification, but more research could be undertaken to determine the most effective methods of interaction with customers who are most active in specific gambling forms, and for those active in multiple gambling forms.

## Evaluation

- 13 *Consider individual differences when evaluating interactions.* Many operators had time limits in place following an interaction to determine whether it was successful, but not all customers escalate or reduce their behaviours at the same rate. Research examining customers whose time frame for behavioural change varied substantially from the time allotted by the operator is needed. If consistent patterns were identified, it could be useful for customising evaluation metrics.
- 14 *Optimise the scheduling of customer interaction evaluations.* Operators identified a wide range of time frames for evaluation scheduling ranging from “continually” to “periodically”. More information is needed to better understand optimal scheduling for addressing customer needs.
- 15 *Consider standardised quality assurance processes.* There was considerable variation in responsibility for quality assurance when evaluating interactions. This raises questions about standardisation and consistency. More information is needed about what is being examined for quality assurance. Different approaches to quality assurance could be tested to ensure the thoroughness of evaluations.
- 16 *Enhance evaluation training.* Training for identifying and interacting with customers appeared to be well developed and systematized, but there was an almost complete lack of information provided about training for evaluation. More attention could be given to optimal approaches to evaluation training so that the most effective measures are employed to improve interaction outcomes in future.

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# Background to the Report

There is a wide range of research being undertaken to inform safer gambling initiatives. The Commission, GambleAware, and the advice of the Advisory Board for Safer Gambling (ABSG) have contributed to a focussed research program<sup>8</sup> that draws upon the expertise of the academic community. The Commission itself conducts research to assess and monitor gambling participation rates and problem gambling prevalence rates. Operators are also involved in a wide range of work, both individually and in collaboration with one another or with a trade body. Because there are many contributors to this body of evidence, it can be challenging to determine the progress made, prevent the duplication of efforts, and develop a framework plan to identify and address knowledge gaps or build on work already completed.

*Customer interaction encompasses* the way in which gambling operators identify and interact with people who are believed to be at risk of or experiencing gambling-related harm. Consistent with the Framework of Harms<sup>9</sup> that underpins the *National Strategy to Reduce Gambling Harms*,<sup>1</sup> gambling-related harm is experienced in three broad domains of health, relationships, and resources. It can extend from the individual level to include families and social networks, communities, and society at large. Harm can be experienced across the risk spectrum and is not exclusive to people with gambling problems.<sup>10</sup> By sharing approaches to identify and interact with customers who may be at risk of or experiencing harms, there is greater potential to reduce harm to customers and at other societal levels.

In the past, some operators have shared their approaches to customer interaction with the Commission and, occasionally, some analyses or evaluation. This is valuable information for others to review and consider within the context of their business, but no platform currently exists for industry to more readily, easily, or consistently share existing information. As outlined in the *National Strategy to Reduce Gambling Harms*,<sup>1</sup> gambling operators are expected to collaborate to prevent harm and facilitate safer gambling. The Gambling Commission has indicated its commitment to raising standards by facilitating industry collaboration in order to identify and share effective approaches, lessons learned, and best practices for customer interaction.

For regulatory purposes, all gambling operators must have systems in place allowing them to identify customers at risk of or experiencing gambling harms. These identification systems can include multiple indicators that are monitored through detection or observation of customers' gambling activities and behaviours. On 31 October 2019, newly strengthened customer interaction requirements in the Gambling Commissions' Licence Conditions and Codes of Practice<sup>2</sup> came into force. *Social Responsibility Code 3.4.1, Customer Interaction*,<sup>3</sup> has an increased emphasis on customer identification and interaction outcomes for those at risk of or experiencing gambling-related harms, assessing the efficacy of an interaction on the individual consumer, and the effectiveness of the operator's overall approach.

In November 2019, Gambling Research Exchange (GREO) scoped and built a trial repository platform where remote gambling operators could submit information relevant to customer interaction and review materials submitted by others. GREO is an independent knowledge translation and exchange organisation with experience in generating, synthesising, and mobilising research across the health and wellbeing sectors. As part of its work programme, GREO provides support to the *National Strategy to Reduce Gambling Harms*,<sup>1</sup> primarily in the area of 'Research to inform action'. The purpose of the trial repository was to help test and build a digital infrastructure for industry collaboration and knowledge exchange. An important aspect of the project is to inform decision making about whether a repository of this kind is worth pursuing on a broader scale.

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## OBJECTIVES

The two objectives of the consultation project are, as follow:

- 1 To trial the provision of a platform where industry could share information relevant to customer interaction; and,
- 2 To review such information so that an informed framework for future work can be shared with industry.

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## PLATFORM REQUIREMENTS

There were a few general requirements for platform capability. Importantly, the platform needed a simple process for operator submissions. Access to the repository was provided to all operators who had submitted materials, but not to the general public. To maintain privacy and ensure confidentiality, GREO assigned a numeric code to each operator, and all documents were deidentified and transferred to a uniform template for consistency.

## SUBJECT MATTER SCOPE

Following an agreement with GREO, the Gambling Commission invited operators to contribute information relevant to **identification** of customers at risk of or experiencing harm from gambling, **interaction** with the identified customers, and **evaluation** of whether the interaction had accomplished the desired outcome. A scope for submissions was shared with operators to clarify the topics of interest. It included several helpful suggestions to guide the selection of materials, as well as the types of output that would be suitable for submission (see Figure 1, see page 19).

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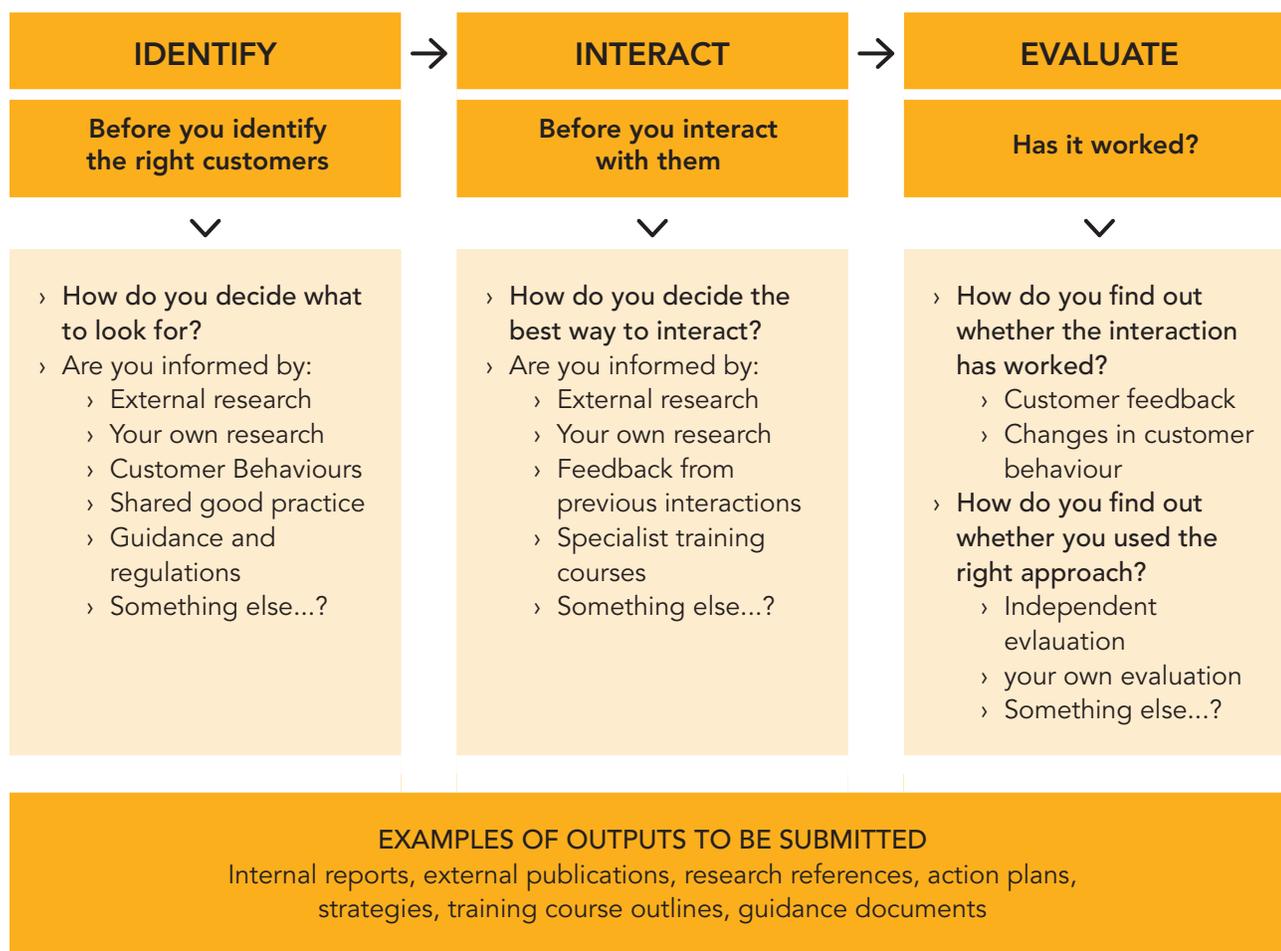
## APPROACH

In October 2019, the Gambling Commission advised operators that GREO would be leading the development of a trial repository for industry approaches to customer interaction in relation to safer gambling. This allowed operators to start thinking about the upcoming project and how they might contribute. On November 26, 2019, the Gambling Commission invited 68 operators of remote gambling sites to participate in the trial repository project.

Operators were given information about the project objectives, scope of information, and type of materials requested (see Figure 1, see page 19). It was left to them to determine the depth and breadth of customer interaction information they wished (or had permission) to share. The process of submitting materials to GREO was outlined, as were instructions on how to access the information contributed by others to the repository. A Terms of Deposit and Use Agreement was reviewed, signed, and returned to GREO when materials were submitted. The Agreement outlined the participant's responsibilities when depositing and accessing information, as well as GREO's responsibilities regarding data privacy and safekeeping. In the absence of a signed agreement, any material submitted by an operator was deemed unusable.

Operators were initially asked to submit their information during the five-week period between November 26 to December 31, 2019 and were sent a reminder message on December 18 to do so. This timeline proved to be challenging for some, so the closing date for submissions was extended to January 31, 2020 in response to operator requests for more time. In hindsight, this may have been expected, given the increased activity during the holiday season. Uptake was initially slow with only five complete submissions by the beginning of January; however, by the end of the month a total of 27 operators had submitted information. One more operator contacted GREO about the project but declined to participate. Another operator who submitted materials did not forward a signed Terms of Deposit and Use Agreement, despite several follow-up emails from GREO's Knowledge Management team. At final count, there were 26 usable submissions. This represents more than one-third (38.2%) of operators originally contacted by the Gambling Commission.

FIGURE 1: Scope for submissions



## ANALYSIS PLAN

The documents were initially read and re-read, to assess relevance and determine the best approach to coding. Most operators addressed the areas of interest specifically, although two chose to provide information on their full responsible/safer gambling programs, with only limited reference to customer interaction. A qualitative description approach<sup>5, 11</sup> was employed with an emphasis on interpretive and descriptive validity (to reflect the accuracy of the information gathered). Our goal was to summarise documents in a way that participants would agree is accurate,<sup>11</sup> and presented in a relevant and accessible format.<sup>5</sup> For this report, we have organised the information into main topics and subtopics relevant to the submission scope. MAXQDA 2020 was used to support the analysis process.

Line by line coding was undertaken to determine initial categories within topical areas. This was followed by selective coding and some reassignment to different categories to prevent overlap between topics. An attributes table was created to indicate differences and similarities among operators in relation to factors such as main gambling form(s), business size, type of ownership, and applicability of submissions.

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# | Stocktaking

Sample characteristics are provided in this section, as well as a general assessment of the applicability of information submitted.

As mentioned, 26 operators provided usable submissions to the repository. They were assigned an ID number and classified according to submission and operator characteristics. Each factor is described below and summarised in Table 1.

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## SUBMISSIONS

**Length** (Number of documents and total number of pages. Note that for PowerPoint submissions, one slide equals one page).

The format of submissions affected the calculation of page numbers. Four operators submitted multiple documents and supplementary materials developed by their organisations.<sup>i</sup>

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<sup>i</sup> Another operator submitted a summary of their customer interaction practices along with five related documents produced by others. Only the summary document was included in the analysis.

TABLE 1: Operator attributes

ID Number	Number of Documents	Number of Pages	Applicability Rating	Primary Gambling Form	Online Only	Ownership	Business size <sup>b</sup>	Job Category of Submitter
1	1	1	2	Sports betting	No	Private	Medium	C-Suite
2	1	4	4	Sports betting, Casino	Yes	Private	Medium	Other
3	1	1	2	Sports betting, Casino	Yes	Private	Medium	Other
4	1	2	3	Sports betting	Yes	Private	Medium	Compliance
5	1	4	2	Multiple forms	Yes	Public	Large	RG/Safer Gambling
6	1	1	4	Lotteries	Yes	Private	Medium	Compliance
7	7	42	5	Casinos	Yes	Public	Large	RG/Safer Gambling
8	1	2	3	Multiple forms	Yes	Private	Large	RG/Safer Gambling
9	1	2	2	Bingo, Casino	Yes	Private	Large	Compliance
10	1	8	5	Sports betting, Casino	Yes	Private	Uncertain	Compliance
11	1	3	2	Multiple forms	Yes	Private	Medium	C-Suite
12	1	3	3	Multiple forms	Yes	Private	Medium	RG/Safer Gambling
13	1	2	2	Multiple forms	Yes	Public	Large	Compliance
14	1	4	3	Multiple forms	No	Private by guarantee	Large	Technical/ Analytical Services
15	1	40	5	Bingo, Casino	Yes	Private with public portfolio	Large	Technical/ Analytical Services
16	1	2	2	Multiple forms	Yes	Private	Large	C-Suite
17	1	5	3	Sports betting, Casino	Yes	Private	Medium	Compliance
18	2	6	4	Sports betting, Casino	No	Uncertain	Large	Compliance
19	1	4	2	Multiple forms	No	Private	Large	Compliance
20	1	4	4	Multiple forms	Yes	Public	Large	RG/Safer Gambling
21	1	1	1	Sports betting	Yes	Private	Medium	Compliance
22	7	30	5	Multiple forms	No	Public	Large	RG/Safer Gambling

ID Number	Number of Documents	Number of Pages	Applicability Rating	Primary Gambling Form	Online Only	Ownership	Business size <sup>b</sup>	Job Category of Submitter
23	1	1	1	Multiple forms	Yes	Private	Medium	C-Suite
24	1	2	2	Sports betting, Casino	No	Public	Large	RG/Safer Gambling
25	17	41	2	Sports betting, Casino	Yes	Private	Large	RG/Safer Gambling
26	1	4	4	Multiple forms	Yes	Private	Large	Compliance

<sup>a</sup> Based on an ordinal rating of the number of codes applied to an operator's submission where 1 = < 10, 2 = 10 – 19, 3 = 20 – 34, 4 = 35 – 49, and 5 = ≥ 50 codes applied. A rating of 1 = low applicability and 5 = highly applicable to customer interaction processes across operators.

<sup>b</sup> The Gambling Commission assigned business size to the list of all operators invited to participate. Parameters cannot be shared publicly due to data protection.

- › One submitted separate pages for each of the three topic areas (41 pages total).
- › Another submitted a summary of the three areas and a separate summary of responsible gambling training (4 pages total).
- › Two operators provided a summary document addressing the topic areas along with supplementary materials in the form of more detailed documents relevant to specific subtopics (30 and 42 pages, respectively). Examples of subtopics are assessing affordability thresholds, language and communication, notes for designing internal survey research, and a sample compliance monitoring report.

The other 22 operators provided a single document of varying page lengths.

- › Nineteen submitted between one to four pages of information (five operators, one page; six operators, 2 pages; two operators, 3 pages; and six operators, 4 pages).
- › Three submitted between five to eight pages (one operator, 5 pages; one operator, 6 pages; one operator 8 pages).

## Variation

The breadth, depth, and applicability of submissions to customer interactions varied substantially. This was anticipated since we were interested in the extent to which operators would participate in the trial repository and what form submissions would take. No predetermined outline or examples were provided for operators to follow so diversity in submissions had been expected. Although variation can be assessed in multiple ways, we chose to concentrate on the applicability of materials to the primary areas of identification, interaction, and evaluation as the measure of submission relevance. Since the purpose of the trial repository is to share useful information among operators, this seemed to be the most appropriate measure.

*Applicability* refers to being able to apply the findings to situations beyond the original setting, and when others might see them as meaningful and applicable to their own situations.<sup>7</sup> For this project, applicability was determined by the number of codes assigned to the total number of documents contributed by each operator. This appeared to be the most systematic way of assessing the relevance of the information to addressing customer interaction. Documents with highly applicable materials were assigned many codes, whereas others with less applicable information received fewer. The number of codes was then categorised into ordinal levels of applicability ranging from 1 to 5, where '1' = low applicability and '5' = highly applicable. The categories were, as follows: 1 = fewer than 10 codes, 2 = 10 to 19 codes, 3 = 20 to 34 codes, 4 = 35 to 49 codes, and 5 = 50 codes or more. Note that a limitation of this approach is that only one person coded the data. Consequently, there could be some variation in the number of codes assigned if multiple coders were involved.

Two operators' submissions received scores of 1 ('low applicability'). These submissions contained materials that broadly focused on responsible gambling (RG), rather than on customer interaction specifically. More than half of the submissions ( $n = 15$ ) received scores of 2 ('some applicability',  $n = 10$ ) or 3 ('moderate applicability',  $n = 5$ ). Nine had stronger submissions ('very applicable',  $n = 5$ , and 'highly applicable',  $n = 4$ ). Stronger submissions were not necessarily longer than other documents; rather, they provided specific information relevant to each of customer interaction areas that could potentially be adopted by others.

## Operator characteristics

In this section, we focus on the characteristics of operators who submitted information to the repository. Initial background searches generated information about primary gambling form, whether they operated online only or had land-based facilities as well, and the job category of the person responsible for submitting the form. We were interested in obtaining information about annual Gross Gambling Yield (GGY) and number of employees to determine business size. Unfortunately, annual reports that contain this information were often behind a paywall and therefore inaccessible. We also attempted to verify the size of the operators' voluntary contributions in 2018/19 to organisations approved by the Gambling Commission for research, prevention, and treatment. This could act as a rough proxy for the size of the organisation (based on the recommended donation level of 0.1% of GGY). Unfortunately, donation information was not publicly available for the 2018/19 reference period for all approved organisations. As a solution, the Gambling Commission provided a list of operators that had been invited to submit, with a description of the size of the operator noted next to them, but did not specify the parameters for why they fell into these categories due to data protection. We also considered whether the business was publicly or privately owned.

### Primary gambling form

This information was accessed by using the reference number assigned to each operator by the Gambling Commission. For this report, we identify up to two gambling forms. Operators that offer three or more different types of gambling are categorised as 'multiple forms'.

Operators represented a range of gambling forms, including casinos, sports betting, poker, bingo, and lotteries. Five operators offered a single gambling form. They included three that identified as sports betting, one that offered lotteries, and the other provided casinos. Nine operators offered two forms of gambling: seven were listed as 'sports betting and casino', two as 'bingo and casino'. Twelve operators provided multiple forms of gambling.

Twenty operators were online only and six had both online and land-based operations.

### Operator size

Based on a business size assignment provided by the Gambling Commission for the list of operators invited to participate, 10 were categorized as medium, and 15 as large businesses. One operator's business name was not included among the 68 operators invited to participate. GREO emailed the submitter requesting the name of the parent company. No response was received even after sending a reminder message. Therefore, we were unable to assign a size category to the operator. Based on the challenge in discovering the parent company, we assume that it was likely either a medium or large size company. The lack of participation from small operators means that a knowledge gap regarding their policies and practices remains.

### Private or public ownership

Seventeen operators were listed as privately owned, one as "private by guarantee", one as "private but exists with public portfolio", six were publicly traded, and information was uncertain for the remaining operator.

### Job category of submitter

The job category of the person assigned to submit materials could have some significance in terms of where primary responsibilities lie for customer interaction. Five categories were assigned, including C-Suite (CEO, COO, Managing Director, etc.), RG/Safer Gambling, Compliance, Technical/Analytical Services, and Other (included external consultant, legal).

The submitters represented the following departments/teams: C-Suite ( $n = 4$ ), RG/Safer gambling ( $n = 8$ ), Compliance ( $n = 10$ ), Technical/Analytical Services ( $n = 2$ ), and Other ( $n = 2$ ). All but one C-Suite submitter worked for a privately owned company.

A wide range of operators participated in the trial repository, but it was challenging to find relationships between attributes. For example, about 80% of operators had online businesses only, but this did not appear to be related to the applicability of submissions, whether the company was privately owned, or the size of the operator. By examining the relationship between submission applicability and job category of submitters, the only apparent link seemed to be that C-Suite submitters tended to send materials that were less applicable to customer interaction than those in other job categories. It could be that these senior executives possessed less *specialised* knowledge of customer interaction when compared to

employees working in RG/Safer gambling or compliance. C-Suite submitters were also more likely to work in a medium size business (only one was an employee of a large company).

Larger companies sent longer submissions, whereas only one medium size operator submitted more than five pages of material. All but one submission of 30 pages or more had a 'highly applicable' rating, as might be anticipated. However, no other patterns emerged. Therefore, with the limited sample size, it is perhaps of greater value to focus on the content of submitted materials.

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# I Findings

This section provides an overview of findings relevant to customer interaction approaches and processes. When reviewing the findings, it is important to remember that there was considerable variation in the depth and breadth of submissions, as was expected. We can likely assume that topics mentioned multiple times were considered important, but we cannot conclude that when a process was mentioned less often, it was not addressed by most operators. It could be that operators were limited in what could be shared, even in an anonymous forum. Or, a certain strategy simply may not have been the primary or most important way to accomplish their goals. Those who provided limited feedback, for example, may have only reported approaches they deemed critical and we cannot conclude that they were not using multiple tactics. For that reason, numbers of operators addressing specific topics are not provided. Instead, we use descriptive language such as “many”, “some”, or “a few” to convey a level of engagement, since it is impossible to be certain of the number of participants to whom it applies. It is also worth bearing in mind that the findings reflect activities and approaches of medium and large operators and may have been different had smaller operators participated in the trial.

Where relevant, illustrative, anonymous quotations are provided as support and attributed to the operator’s ID and gambling form(s). Operators who offer more than two forms of gambling are designated by ‘multiple forms’. An ‘O’ or ‘B’ assigned to the ID number indicates whether their business is online only (O) or if they provide both online and land-based gambling (B).

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## IDENTIFICATION

Operators were asked to consider how they decide what to look for when identifying customers at risk of or experiencing gambling harms. They were prompted to share information sources such as external and internal research, customer behaviours, shared good practice, guidance and regulation, and anything else. Identifying customers at risk was, by far, the most thoroughly addressed interaction area. It was apparent that

most operators had received specialised training and were well-versed in the identification processes and techniques used by their businesses. The categories below highlight how they determine when a customer is at risk of or experiencing gambling harms.

## Who is responsible?

A few organisations commented on the assignment of responsibility for identifying customers at risk. Almost all who did so said that employees across the organisation played a role. For example, when acknowledging the challenges of identification, this operator noted that,

Finding clues and spotting indicators is fundamental in identifying that a player might potentially have a gambling issue...an addicted player will not openly admit his gambling problem. Most of the time, he/she does not even acknowledge he has a problem. Thus, the role of all staff members across departments to catch the hints being indicators problem gambling is invaluable and leads to the next stage, meaning interaction (O-10, casino and sports betting).

Another commented on the importance of RG training across departments, and not just the player-facing teams. In this company, resourcing for identification was shared across teams, thereby representing, “a multi-faceted and multifunctional ecosystem of shared information, moving players to relevant teams with a shared team ethos” (O-15, multiple forms). Another operator commented that, “All the procedures are based on the guidance and regulations, however the operator shares best practices among the company by promoting the responsible gaming culture and does its best to always take a step further in players’ protection” (O-10, casino and sports betting).

Some organisations specified that certain departments took the lead. For instance, one noted that “worrying interactions are highlighted by Customer Service and VIP teams” (O-21, sports betting), which may suggest that responsibility was not shared as fully among employees as it was for some other operators.

## Risk detection algorithms

Due to the nature of online accounts that allow all sessions and transactions to be tracked, all operators reported monitoring accounts for behavioural and financial information. Several operators also offered examples of manual, more qualitative processes that they employed. As one operator summarised, “Operators differ in what behavioural markers they use. All operators use some manual processes and have a degree of automation for monitoring, identification and validation of potential risks of harm” (B-22, multiple gambling forms).

Algorithms that incorporate multiple factors to flag customers who could be at risk of problem gambling were the primary means of identification regardless of size, gambling form(s), or whether the business was publicly or privately owned. Almost all operators referred to their algorithms specifically, but a few did not.

In these cases, an assumption was made from the information they provided regarding tracking behaviour and financial data, that some form of machine identification was employed.

The choice and number of factors included in the algorithms varied by operator. For example, one reportedly used “over 480 features based on the following data sources: game transactions, withdrawals, deposits, bonuses, and customer status changes” (O-08, casino, sports betting and jackpots). Another indicated that their predictive model “considers 114 behavioural and transactional behaviours to identify any customers whose patterns and trends indicate that they may potentially develop a gambling problem in the future” (B-18, sports betting). By contrast, another operator used nine markers of harm to generate a daily risk score that would “automatically trigger the appropriate customer interaction” (B-14, multiple forms). Some algorithms were determined internally through machine learning, others relied on external sources, and several operators combined both approaches.

For example, an *internally* developed algorithm is described below:

The company uses propriety software — algorithms to measure and analyse changes in an individual customer’s behaviour and playing patterns — to better predict and identify problematic or potentially problematic gambling in its early stages. The system was developed by in-house data scientists using data gathered over several years (O-13, multiple forms).

It was not uncommon for operators who developed their own algorithms to base their model on broad categories of predictors like “time and spend, account indicators, and use of gambling management tools” (O-6, lotteries). Others focused more heavily on markers exhibited by customers prior to self-exclusion, as demonstrated below:

Our machine learning algorithm is designed to identify customers whose behaviour marks them out as being more likely to self-exclude in the future. We use a Machine Learning approach to identify these players: we are only interested in the most accurate prediction regardless of how this is achieved, we are not interested in the causality of the features to behaviours. The Machine Learning approach, by its nature iterates and improves its risk detection. As time goes by and we add more features to the model it improves the way in which it detects customers it continually evolves (B-22, multiple gambling forms).

For a few operators, risk factors were determined by relying solely on *externally developed sources* such as the PricewaterhouseCoopers (PwC) report<sup>12</sup> with research and findings on remote gambling (e.g., O-21, sports betting). The 61 markers identified for the PwC predictive model were specifically mentioned in five submissions. They are grouped into three risk categories of demographics (8 ‘on-entry’ markers), behavioural (14 markers that ‘build over time’), and daily triggers (39 ‘in-the-moment’ markers).<sup>12, p.65</sup>

Most operators appeared to use a *combination* of external sources and algorithms developed in-house. For example, this operator used a proprietary algorithm with markers that were,

...highlighted both in the PwC “Remote Gambling Research Aug 2017” report as well as the Gambling Commission’s “Customer Interaction — guidance for remote operators” published in February 2018. We also use supplementary markers of harm, exhibited by our customers that are not specifically mentioned in either report/guidance and are based on internal analysis and evaluation (O-26, multiple forms).

Similarly, this operator noted that their model incorporates,

15 markers of harm (external research) or indicators of potential gambling related harm with 6 definitive markers and 9 ambiguous markers. We also include an estimation of time spent as well as an affordability marker (B-19, multiple forms).

Categories of risk markers commonly included in the algorithms are outlined below:

- › **Financial data.** Considerable attention was given by operators to the value of financial data in identifying customers at risk. Markers relevant to financial data typically included,

Repeatedly changing financial limits (i.e., deposit limits), a high volume of rejected or unsuccessful deposit attempts, repeatedly cancelling pending withdrawals, suffers a substantial loss after a withdrawal cancellation, attempts to register more payment cards, attempts to open multiple accounts to bypass set limits, and appears to be spending significant amounts of money that according to the demographic picture is unlikely (particularly under 25s) (O-12, multiple forms).

- › **Behavioural patterns.** Financial data alone is an imperfect measure. As this operator notes, “By using behavioural elements of a customer’s activity...we can begin to build a far more accurate representation of the customer gambling activity. We no longer rely on a single view of a customer’s financial activity” (B-19, multiple forms). Typical behavioural markers were chasing losses/ trying to recover winnings, erratic betting patterns (e.g., making small deposits of currency for a while and then depositing 100% or more of their weekly average (O-2, sports betting), and product choice. As this operator summarised,

It is very important to understand that not every customer will trigger every indicator and therefore it is just as important to assess a customer subjectively by identifying any changes in his behaviour compared to his previous gambling activity as opposed to simply objectively against accepted characteristics of an at-risk customer (O-12, multiple forms).

- › **Temporal factors.** The time, timing, tempo, and temporality of play are part of behavioural patterns. They are treated separately here because diverse temporal markers are often used by operators to identify at-risk players. *Time* refers to the duration or amount of time spent gambling, usually in the context of a session, or per day or per week. *Timing* refers to the time

of day the session(s) take place. Operators would flag customers who were regularly gambling during 'anti-social' or late-night hours, e.g., "Hours played in the last full period midnight to 6 am" (B-14, sports betting and gambling). *Tempo* refers to the intensity of play. For example, operators may use algorithms to track the number of sessions during a 12-hour period, and number of consecutive days of play. *Temporality* refers to cyclical patterns tied to specific events and holidays when gambling activity can increase. One operator used activity reports to assess time relative to "the behavioural research on addiction, playing on birthdays, holidays such as Christmas, etc." (O-10, casino and sports betting).

- › **Big wins.** Large wins are sometimes flagged as a risk factor for gambling harms. Three operators noted that a "'big win' in relation to their typical staking and betting history" (O-2, sports betting) was flagged because it could hide and/or lead to harmful behaviour.
- › **Use of responsible gambling (RG) tools.** Many operators reported automatic flagging of customers who accessed RG tools such as, "changing deposit limits, use of the time-out function, completion of a previous period of self-exclusion or previous customer interactions" (O-02, sports betting and casino).

Markers associated with future self-exclusion were relied upon heavily because of the belief that a high proportion of those who self-exclude experience harm from gambling. Consequently, several risk measures adopted by operators were based on patterns shown by customers prior to self-exclusion. One operator described a typical approach, as follows:

We look to identify thresholds within each behaviour, where there are a significantly higher proportion of self-excluded customers, when compared to the rates of self-exclusion of the overall population. The premise for this approach is that we then set thresholds to identify the existence of behaviours in active customers which are more commonly observed in customers that have then gone on to self-exclude (O-16, betting, gambling and gaming).

Some operators cautioned about relying upon self-exclusion entirely. For example, an operator who had conducted research on using self-exclusion metrics as the sole model versus incorporating other measures reported that, "What we have seen is that long-term self-exclusion is not a good proxy measure for problem gambling, and therefore we are examining other ways of determining such a proxy measure" (O-20, multiple gambling forms). Similarly, another stated, "Using it [self-exclusion] as an almost exclusive metric has flaws as it could mean we are discounting other potential identifiers of risk, for example, Cool Offs, GamStop, etc." (O-07, gaming and gambling). Value was seen in using a combination of factors to calculate risk. This would be a more prudent approach since self-exclusion predictors can be used to identify a proportion of problem gamblers but only a small proportion will choose to self-exclude.

## Manual techniques

Since online operators have few opportunities for direct contact with customers, manual techniques to identify customers at risk were used in a much more limited way than algorithms and other electronic forms of account monitoring. Even so, there were opportunities to employ manual techniques in creative ways. For example, this operator outlined three methods regularly used by the safer gambling team that enhanced the identification process:

- 1 *Loose Linking*. Manual review of accounts that look loosely linked according to our linking logic.
- 2 *The Member of Concern inbox (MOC Box)*. Single location to send Responsible Gambling concerns for an in-depth review from any department.
- 3 *Unlucky Experience*. Review of Top Unlucky Accounts (based on loss during the previous day), noting any concerns thoroughly and objectively and taking action where needed such as intervention/interaction (O-15, multiple forms).

Another operator reported that a manual review would follow an RG interaction using information gleaned during the interaction, “with the aim of determining whether the customer is playing within their means and is also comfortable with their level of spend” (B-14, multiple forms). At that point, the team would take appropriate action, whether enforcing a break from gambling, or sharing information and advice on available RG tools. The same operator also emphasised the importance of listening to other employees’ concerns by reporting that, “We also receive proactive referrals from customer facing teams such as Customer Services and VIP.” Others paid attention to “employee concerns” (O-15, multiple forms) as an integral component of identifying at-risk consumers.

Manual reviews were sometimes undertaken to assess the effectiveness of algorithms. One operator noted that as they continued to develop the effectiveness of their model, a manual risk matrix was employed to compare the output of the model to a manual review conducted by a safer gambling executive. Depending on available resources, other organisations could potentially improve the accuracy of identification if they were to adopt this practice.

## Communicating with customers

Communicating with customers could yield important clues about whether they were at risk of experiencing gambling harms. Communication was initiated by operators as part of the interaction process or by customers themselves. Not all operators mentioned examining communications, but those who did monitored customer communications for *content* and *tone*. This operator summarises the type of *content* that would raise concerns:

Any sentences suggesting problem gambling, lack of control, addiction, decision-making problems, such as (but not limited to) substance abuse.

Hot words such as (but not limited to): addiction, dependence, craving, problem, financial problem, uncontrollable, out of hand, losing/loses, playing/betting

too much, frustration/ stressed, vulnerable, nervous/worried, cheating/fraud/ fraudulent/unfair/arranged/rigged game (O-10, casino and sports betting).

Operators paid attention to contextual factors such as frequent complaints, requests (or demands) for bonuses, impatience with the speed of withdrawals, manipulation, over-exaggeration, lies, unrealistic perception of odds or winnings, and "mentioning having closed or excluded accounts on other websites (not necessarily within our Group)" (O-08, multiple forms). Another noted situational factors such as "abrupt chat closures following third person entry (e.g., 'I must go, my wife came in', which might signal that the player is hiding his habit" (O-10, casino and sports betting). The same operator shared that agents could see what players intended to write during chats, so they also look at text that has been written and deleted that could raise concerns.

One company employed scanning technology for emails, "to search incoming customer emails for keywords that may relate to problem gambling" (O-13, multiple forms). This was the only mention of conducting computer-assisted lexical analysis of customer communications for risk identification purposes, although it may be that other operators also do this.

The tone of customer communications also assisted with identification. Operators watched for customers who sounded desperate and/or frustrated, had noticeable changes in their mood/personality, were rude, seemed stressed, angry, or panicked, or demonstrated other behavioural traits, "such as agitation, distress, intimidation, aggression, impatience, anxiousness, impolite/depressed/sad attitude, hopelessness, etc." (O-10, casino and sports betting). One operator spoke of communication tactics to reduce the amount of "abusive communication coming from the customers, hurting our employees" (O-20, multiple forms). When they were able to get appropriate help for these customers, the staff became more motivated because the amount of abusive communication decreased. This speaks to the consequences of customers' communication on employees, as well as the importance of monitoring communications for both content and tone for more accurate identification.

## Knowing the customer

Five operators shared information about the importance of knowing your customer (KYC) to more accurately identify customers at risk. Some reported reviewing documentation that would indicate financial difficulties, such as loans, unpaid bills, negative bank balances, etc., as well as questions about health issues, like disabilities that might affect decision-making, skills, depression, or suicidal thoughts. Another would try to access relevant, "open source information (e.g., from social media sites, news articles, etc.) indicating that the customer has suffered or experienced a life event that may give rise to vulnerability (e.g., death of a family member, loss of job, etc.)" (O-12, multiple forms).

Registering for an account requires personal details that can be linked elsewhere. As one operator shared, "Internal logic and controls are used across the company's UK Network, linking accounts using the player's first name, surname, and date of birth" (O-15, multiple forms). If further information is required, players are asked to send documentation such as a copy of a driver's license, passport, or utility bill, which allow the player to open an account and wager, but also provide some contextual information if the customer begins to experience problems.

## Internal research

Submissions that described internal research varied from detailed summaries with visual representations in charts and graphs, to others that provided a general sketch of research activities. There may have been limitations placed on operators as to the level of detail they could share with others through the repository.

When conducting research internally, an important component was having staff with appropriate educational credentials. As this operator commented,

We have a team who are highly qualified, who use their knowledge and understanding within their field to problem solve, including having staff with degrees in Data Science, Computer Science, Psychology and a PHD in Complexity Science. This allows us to approach projects in a scientific manner and produce our in-house work (B-24, sports betting and casinos).

Most often, research was undertaken to improve the ability of their algorithms to detect players at risk. Some operators reported working with external sources, such as universities or consultants, with specific goals in mind. For example, this operator reported that to improve the effectiveness of their model, “we have conducted our own research with the goal of understanding vulnerable customers better. This has been done in collaboration with academic institutions” (O-06, lotteries). An operator engaged in a project with PwC to examine ways in which their predictive model could be improved by using their model in commissioned research. A survey of customers was undertaken, and they used the information “to validate the accuracy of the predictive models” (B-18, sports betting). As an added benefit, the research process also highlighted opportunities for the operator “to increase the impact of RGI [responsible gambling initiative] email communications through increased personalisation”. Another reported a joint project between the RG manager and a business initiative data scientist who used findings from the PwC research report<sup>12</sup> as the foundation of their ongoing research to improve identification.

An advantage of conducting research internally is access to large databases of information. One operator reported using historical data with a sample of about one million players to test ensemble methods, such as ‘gradient boosting’ and ‘random forest’<sup>ii, 13</sup> in predicting self-exclusion (B-22, multiple forms). Having such a large number of cases is important in accurately refining their markers. They also applied the ‘markers of harm’ from PwC reports<sup>12</sup> to their models. The operator was especially active in conducting research. They had undertaken several projects, including internal analyses of financial and time metrics, “to assist in the development of trigger levels for interaction”. They also had plans to conduct a survey that would include the Problem Gambling Severity Index (PGSI),<sup>14</sup> a measure commonly used by academic researchers to assess risk levels, to help train the model using their own customer data.

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<sup>ii</sup> Gradient boosting and random forest are machine learning techniques used in algorithms to rank the importance of variables in a classification problem or regression analysis. Both use ‘decision trees’ (simple, decision-making diagrams). The techniques differ in how decision trees are built, and the point at which decision trees are combined. Gradient boosting combines decision trees throughout the process, whereas random forest averages results at the end of the process.

Others have drawn upon publicly available government data with information about age group, income, and geographic region to test models that incorporate affordability thresholds in conjunction with risk levels. One operator shared that they were, “trailing a relatively new gambler screening tool, called the Positive Play Scale” (O-07, gaming and gambling) and had also conducted survey research to calculate estimates of PGSI risk rates for their customer base. Using this information, they “built a machine learning model to predict PGSI scores...that did a reasonable job”. This is now being used to enhance their safer gambling strategies.

## External resources

Not all operators submitted information about conducting their own research. Instead, many reported using the findings of other studies and resources to guide and enhance identification techniques. Many of these resources, which consist of academic and grey literature, stakeholder websites, and government data were identified by operators. Summaries and links to these are available in the “Resources” section of the repository (see Appendix B). Most provide information on problem gambling, measurement techniques, and risk factors, with a few resources on approaches to modelling.

Some operators regularly attend conferences to access the latest information about identifying customers at risk. One operator reported, “using information gleaned from various conferences and forums related to RG, for example: SNSUS Tampere 2019, EASG Malta 2019, NCRG conference in Las Vegas, 2019” (O-08, multiple forms). Another commented that, “we actively contribute to and attend industry bodies, where information is shared between operators” (O-12, multiple forms).

Typically, when operators mentioned drawing upon external research to enhance identification processes, multiple sources were offered. This operator was typical in the range of resources they accessed, but perhaps somewhat atypical in specifying the extent to which they engage with others on this issue:

The company continues to maintain a close dialogue with relevant stakeholders which include regulators, industry bodies and charities, and are committed to further developing safe gambling initiatives and contributing to the continuous improvement of standards across the industry. In this capacity, company’s representatives and teams have participated in various research programmes and workshops. The company then updates its proprietary software and training materials with relevant learning (O-13, multiple forms).

Population surveys with prevalence estimates could also be useful. Combined data from the Health Surveys for England and Scotland (2016) and the Wales Omnibus Survey (2016) provided prevalence rates that acted as benchmarks “to ensure that we are identifying the right number of customers throughout our system” (O-16, betting and gaming). The limitation to this approach though is that Health Survey data are representative of the whole population, whereas operators’ data represents only people who gamble, is not nationally representative, and would include a higher percentage of people along the risk continuum.

Research conducted by stakeholders in the UK like GambleAware, as well as reports available through the ABSG website, were mentioned by some operators. One noted that the “findings about best practices have been dissected and factored into our processes” (O-17, sports betting and casino). Other stakeholders like the Senet Group (Markers of Harm, and CEO Commitments), the former RGA (now Betting and Gaming Council; Customer Affordability Project), and Playtech (Player Volatility Awareness Project), provided useful information. Other stakeholders that had been contacted for information included GamCare, Samaritans, and The Mix.

A few operators looked beyond the UK for information. This operator commented on the value of extending their horizons to review practices and policies of other jurisdictions:

We also utilise research from other gambling jurisdictions such as Australia and Canada in developing our own internal polices for identifying and interacting with customers who may be exhibiting signs of GRH [gambling-related harm]. This holistic approach we have taken has also broadened our knowledge and understanding of vulnerability and how best to identify and interact with persons in a vulnerable state (B-19, multiple forms).

Even so, this approach was less common. Most reported accessing only resources based in the UK.

## Guidance and regulation

Almost all operators explicitly mentioned the importance of the Licence Conditions and Codes of Practice (LCCP), Customer interaction — formal guidance for remote gambling operators, Formal guidance note under Social Responsibility Code 3.4.1.<sup>3</sup> Those who overlooked it were operators who provided less applicable submissions when compared to others. Statements such as the following were typical:

The company continues to monitor publications and guidance released by the Gambling Commission to ensure that it’s policy and procedures remain up to date and that industry best practice is being employed by our staff (O-12, multiple forms).

We pay close attention to regulatory updates published by the Gambling Commission and other bodies and updates its propriety software and training materials with relevant learning from ongoing enforcement action or more general guidance on interaction (O-13, multiple forms).

Additional Gambling Commission resources mentioned by operators include the *Gambling Participation Report 2018*,<sup>15</sup> *Gambling Participation Technical Annex*,<sup>16</sup> *Gambling Participation in Great Britain 2016* (prepared by NatCen Social Research),<sup>15</sup> *Young People & Gambling Report*,<sup>17</sup> and the *National Strategy to Reduce Gambling Harms*.<sup>1</sup> A few operators mentioned paying attention to sanctions and regulatory settlements, “to ensure our practices are taking into account the latest learnings” (B-01, sports betting).

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## Identification training

Many operators submitted information on training for identifying customers at risk. Some included slides from sessions that were offered during on-board training and regular follow-up courses. Others outlined topics for workshops that were offered to employees such as how to recognise markers of harm, problem gamblers and pathways to help, and how to prioritise safeguarding.

One operator described interactive sessions that allowed employees to engage in a wide range of activities, “including scenario-based learning, knowledge and skills assessment, filmed examples and discussions and presentations” (O-25, sports betting and casino). While training was generally conducted in-house, some operators reported annual training with external providers. For example, “In 2018 we worked with GamCare to provide training to key business units and operational staff” (O-17, sports betting and casino). This operator partnered with another operator and YGAM on separate occasions to offer a workshop that included new information about identifying risk-related trends, particularly among younger gamblers. This was then used to update their business practices.

Others provided information about learning platforms and live courses they found useful. For example, they identified consultants and stakeholders such as Epic Risk Management, AMLGS, iGaming Academy, and frequently, GamCare, that offered training in identifying customers at risk of or experiencing gambling harms.

## Summarising identification

Operators used a variety of approaches to identify customers at risk of or experiencing harm from gambling. By far, the most common method was risk identification algorithms that included multiple financial, behavioural, and temporal indicators to flag customers who could be experiencing harm from gambling. An emphasis was placed on using markers derived from the accounts of customers who had self-excluded or used other RG tools in past, although not all operators agreed that self-exclusion markers were fail-safe. Manual approaches were also used to ensure their markers were identifying customers at risk. Such approaches also valued employee experience to assess whether an interaction was needed. Some — although not all — operators reflected on the importance of monitoring communications with customers for both content and tone. These factors, when considered along with account data and demographic profiles of the customer, were deemed useful for identification purposes. Some operators regularly conducted research in-house to enhance their risk identification algorithms. Others relied more upon research that had been conducted externally or looked to external sources such as the PwC report<sup>12</sup> to guide the development of identification resources. Many operators provided names of documents, data sources, consultants, and other stakeholders to whom they regularly turned for information. Mentioned by almost all operators was the importance of adhering to the Gambling Commission’s LCCP, SRC 3.4.1 materials. Many also made use of resources published by the Gambling Commission to enhance their understanding of customers at risk and the overall gambling landscape in Great Britain.

## INTERACTION

Operators were asked to share how they decide the best way to interact with customers identified as at risk of or experiencing gambling harms. In keeping with the previous section, prompts were supplied as to whether operators were informed by internal and/or external research, feedback from previous interactions, specialist training courses, or something else. This section includes a range of topics that can be grouped into five main categories: drawing upon internal resources, guided by external expertise, communication strategies, customising interactions, and training. Findings about how operators decide the best way to interact with customers are outlined below.

### Drawing upon internal resources

Internal resources refer to in-house reports, account monitoring, research, and employee experiences that form a basis for interaction with customers identified as at risk. A few of the operators began by sharing their businesses' goals for customer interactions. This operator summarised the goals of his or her organisation: "It is our goal to make these interactions **meaningful, timely and easy to understand** [emphasis original]" (O-03, sports betting and casino). The handful of others who commented on the goal of interaction shared a similar perspective.

Operators acted upon flags generated by their algorithms to signal that a customer interaction was needed. Reports were regularly monitored, and appropriate action was taken depending on the risk level identified. For example, an operator noted that they relied upon the in-house algorithm from their Safer Play Detection monitoring tool to, "drive the type and message delivered in our interaction" (O-17, sports betting and casino). Another operator used a Model of Harm (MoH) to guide the type of interaction. The markers were: spend from the norm, frequency of play, frequency increases, deposit frequency, deposit frequency, failed deposits, multiple payment methods, credit card usage, withdrawal reversal, and late-night play. They commented that a score of 8 or more showed that a customer was at risk of harm, with different thresholds for more serious risk levels. These thresholds would automatically trigger a specific interaction:

- › MoH 0 to 7 – no risk/no action
- › MoH 8 to 9 – low risk/send "education" communication
- › MoH 10 to 14 – medium risk/send "education" communication and exclude from direct marketing for 28 days
- › MoH 15+ – high risk/send "interaction" communication and exclude from direct marketing for 28 days and manually review each case (B-14, multiple forms).

Some took a more comprehensive approach by building upon the algorithm results to include a human element in the review process, as outlined by this operator: "The interaction method selected is done so based on the level of risk defined by the safer gambling executive and propensity model" (O-06, lotteries). Still, few operators reported combining human and machine elements.

Several operators conducted research in-house to continually improve interaction processes. Most who described internal research projects did so at a general level, such as this operator who stated that, “The effect of the interactions are analysed and interaction strategies are updated accordingly” (O-13, multiple forms). Another mentioned that they undertook “internal analysis as to the most effective means of effecting behavioural change based on communications sent to our customer base as a whole (O-12, multiple forms). While these comments provide little practical information, they demonstrate support for ongoing analysis of customer interactions.

A few operators shared detailed information about methodologies and findings that could be tested and perhaps adapted by other operators. For example, one operator described a project exploring the effectiveness of different subject lines for directed safer gambling email and included a PowerPoint presentation with study details. The same operator also tested which terminology was most useful in customer communications. Findings are outlined below:

Whilst customers seem to have a slight preference for the term Responsible Gambling, our assumption that ‘Safer Gambling removes some onus away from the individual’ was confirmed by our ‘responsibility allocation activity’. We also found that the term Responsible Gambling seems to have a stronger association with ‘problem gambling’, which we believe is one of our main blockers to engagement. These outcomes suggest that we’re doing the right thing by moving away from use of the term Responsible Gambling (O-07, gaming and gambling).

Most operators used additional internal reporting systems that they could regularly review to improve interactions. Beyond in-house algorithms, one operator (O-17, sports betting and casino) summarised other types of internal resources used to monitor customer interactions. These included customer interaction monitoring (reviewing previous interactions to see whether the message was successfully delivered to the customer); behavioural analytics (monitoring customer behaviours following an interaction for a demonstrable reduction or control of harmful behaviours); and, examining customer engagement across multiple communication formats to assess success rates associated with different approaches to interaction.

## Guided by external expertise

External sources of expertise included reports, consultants, stakeholder organisations, and academic research that had been conducted to determine how to best interact with customers at risk. Fewer than half of the operators reported consulting external sources when deciding upon the best approach to customer interaction. Of those who did, GamCare was mentioned by the majority. For example, an operator mentioned that, “a close working relationship with GamCare has allowed bespoke mandatory training to be designed and delivered to our player facing teams” (O-15, multiple forms). Others spoke of refreshed computer-based training offered by GamCare, as well as more casual guidance offered by the local office.

Other external stakeholders who had some influence over best ways of interacting included Samaritans, reports by Senet Group, and “experts in behavioural economics” (O-15, multiple forms). Some

hired consultants to guide interactions. This operator reported that, “We are also working with Epic Risk Management to ensure content will have most impact in engaging the customer through the personalisation of interaction content around the markers of harm” (B-14, multiple forms), while another had, “engaged LAB, an external company that use a scientific combination of nudge theory, priming, behavioural economics, language selection and choice architecture to improve outcomes for potentially vulnerable customers” (B-18, sports betting).

Some operators noted the importance of guidance from the Gambling Commission, specifically, again, *Customer interaction — formal guidance for remote gambling operators*.<sup>3</sup> Further, one spoke of using “the Gambling Commission work on messaging to low and moderate risk customers to inform the method and approach in our interactions with customers” (B-22, multiple forms). Another mentioned that they had “also reviewed and implemented guidance and regulatory action undertaken by the Gambling Commission to review, reinforce and develop our strategy” (O-06, lotteries). It was apparent that for some operators, Gambling Commission documents and reports had shaped their choice of interaction approaches.

Academic research about approaches to customer interaction is scarce, so it is perhaps not surprising that only two operators specifically mentioned turning to the academic literature for guidance. One provided citations for three articles<sup>iii</sup>, <sup>18-20</sup> while another spoke of using a grey literature research document<sup>iv</sup> drawing upon the experiences of operators in multiple countries.<sup>19</sup> Another operator commented on research generally, noting that some things needed to be considered before acting on the findings: “Research is great but we have to take in account a number of caveats including the validity and reliability of the findings, ecological validity, and who and why the research was undertaken, what were they trying to achieve, and what was this based on?” (B-24, sports betting and casinos). This was the only instance where an operator raised concerns about relying on findings from academic research; however, they make a valid point about the need for a critical perspective when considering evidence that could inform their interaction processes.

## Communication strategies

Operators provided a considerable amount of information about the ways in which they communicate with customers at risk of or experiencing gambling harm, as described below.

- › **Modes of interaction** were reliant upon the customer’s risk threshold. Operators often began with automated pop-up messages, live chats, WhatsApp, and SMS at lower risk levels. Email was also used with low risk groups by some operators, and with moderate risk groups by others. At least one operator noted that although the customer could contact the operator via email, chat, or call,

<sup>iii</sup> Wood, Wohl, Tabri, & Philander (2017), Measuring responsible gambling amongst players: Development of the positive play scale. *Frontiers in Psychology*; (2) Gainsbury, Abarbanel, Philander, & Butler, (2018). Strategies to customize responsible gambling messages: A review and focus group study. *BMC Public Health*; and, (3) Smith, P. W. (2014). GameSense: Changing the channel on responsible gambling. *Responsible Gambling Review*.

<sup>iv</sup> See Philander, Stark, Keshabyan, & Robinson. (2018). *Assessing the techniques and needs for responsible gambling professional training and education*. Retrieved from: [https://www.unlv.edu/sites/default/files/page\\_files/27/ICGR-TrainingNeedsOfTheResponsibleGamblingProfessional.pdf](https://www.unlv.edu/sites/default/files/page_files/27/ICGR-TrainingNeedsOfTheResponsibleGamblingProfessional.pdf)

the operator could only contact the customer by email. For higher-risk customers, communication more often took place by telephone and, for at least one operator, in person for VIP customers (O-12, multiple forms). The choice of communication mode could be based on factors beyond the risk severity level. This operator commented that it extended to:

...the preferred method of communication by the user based on their own submitted preferences or previous customer service interactions; any previous methods of RG communication used and whether they resulted in a positive change; and, internal analysis as to the most effective means of effecting behavioural change based on communications sent to our customer base as a whole (O-12, multiple forms).

- › **Communication modes** varied, but almost all operators used pop-up messaging, live chat, and email. No operators reported using concurrent strategies simultaneously at the same risk level. Based on the data provided, it is impossible to know whether only consecutive, sequential approaches were used as risk thresholds increased.
- › A **stepped approach** in the type of communication used was reported by several operators. Their approach to interaction varied based on factors such as risk threshold, and the history of previous interactions including behaviour patterns and/or use of RG/SG tools following an interaction. One operator described how risk scores (RG levels) guided interactions when using pop-up messages:

Both RG1 and RG2 interactions are pop-ups that a customer must read and accept upon their next login, or when they navigate to a new website page. These interactions vary in timing and content to acknowledge that customers respond to interactions differently and to ensure effective engagement from a social responsibility perspective. Such RG1 and RG2 interactions clearly signpost the player protection tools available to customers. Without acknowledgment, the customer is not allowed to continue gambling (O-26, multiple forms).

At a higher risk threshold or following an unsuccessful initial interaction, one operator shared that, “further messages are sent where the message content escalates. We use techniques such normative behavioural feedback, whereby the customer is informed that very few customers display this level of behaviour; a well-known tactic in behavioural economics” (O-16, multiple forms). The operator continued by stating that,

If we see a continuation of the behaviour, we have to try different approaches and given the elevated level of concern, it is our view that operators should become more interventionist. For example, we may mandate that the customer complete a problem gambling self-assessment (a tool that assists both the customer and operator in identifying whether the individual is at risk of harm).

Others reported using interaction strategies deemed appropriate to the risk level exhibited by the customer. In general, interactions would begin with what might be considered ‘light touch’, followed by more active interactions. Ideally, communications with customers were structured to

include three components: (1) inform, i.e., tell the customer what had been observed, (2) options, i.e., provide a list of actions to consider, and (3) signpost, i.e. let the customer know about the types of available support.

- › Techniques designed to increase self-assessment and self-awareness were important because customers may deny that they are experiencing problems. Strategies included mirroring (summarising and rephrasing customers' statements), recommending the use of self-assessment tools, and taking the BeGambleAware quiz<sup>21</sup> (which is actually the PGSI<sup>14</sup>). One operator provided more detailed information by outlining the mirroring, or reflection, process:

Reflection is like holding up a mirror and repeating back what the customer is saying to you. This could be the whole sentence or certain parts.

**CUSTOMER:** "I don't know if I could ever tell my wife that I have spent our entire savings, she will never forgive me."

**RG:** "What you are saying is you don't know if you could tell your wife you have spent your entire savings and you think she will never forgive you for this, have I got that right?" (O-25, sports betting and casino).

This type of information could be useful to other operators who may wish to try a new or different strategy.

- › The **tone of language** used during an interaction could affect its success. Emphasis was on positive terminology and communicating in an informative and supportive manner. For example, one operator commented,

**Telling** people what they **should** be doing isn't likely to be well received. This type of communication strategy can suggest that customers require support with their gambling and creates a greater association between 'responsible gambling' and 'problem gambling'. This in turn prevents engagement due to stigmas relating to problem gambling. However, **highlighting** the **positive outcomes** that could be brought about through, for example, using a tool, is likely to evoke a more positive response, and could help to break down the perception that 'this tool is good, but I don't have a problem so it's not for me'...[emphasis original] (O-07, gaming and gambling).

- › **The content of interactions** was also considered. One operator stressed that knowing "what to say and how to say it" (O-09, bingo and casino) was important. Some recognised that if they could interact in a way that players found more pleasant, it would increase the chances of a successful outcome. This aligns with a more humanistic approach to interaction, whereby having a conversation can make a difference when digital messaging may not work. As this operator relates:

While many of the measures within the system are primarily aimed at facilitating informed choice, we think it is important that operators recognise when to have a direct conversation with the customer. The call we complete consists of a series of questions which help establish whether a customer is in control of their gambling and make a decision on how to manage the account moving forward. This may include the enforcement of account restrictions or ultimately the termination of the customer relationship (O-16, betting, gaming and gambling)

As with others, this operator used a strategy designed to increase the customer's sense of self-awareness.

## Customising interactions

Just less than half of the operators related that deciding upon the best way to interact with customers could also involve a more customised, or personal approach. As this operator commented,

One of the key objectives of our responsible gambling programme is to improve the approach to interacting with customers to ensure interactions are as effective as they can be. As part of this workstream, we recognise the importance of adopting a personalised approach to our interactions (B-18, sports betting).

A couple of operators recognised that decisions on how to best interact with customers included an element of trial and error, since "no two customers are the same and groups of individuals react differently to various forms of communication" (O-17, sports betting and casino). Although systemised policies and practices were in place, the desired outcome was not always achieved through their use, so other methods needed to be employed.

These operators supported the idea of flexibility in approach and paying careful attention to outcomes when choosing alternate methods of interaction: "We can adjust technique very easily as a small operator and often try multiple ways with individual clients to ensure responses. We can change the tone and directness of messages as well. Feedback is heavily used" (O-25, sports betting and casino). Similarly, a larger operator felt that effective interventions were achieved when they "Empower teams to do what is best for the player", adding "we do not provide scripts" (O-15, multiple forms). As one sports betting operator related when commenting on the need for flexibility in interactions, "There is no set format for this, yes there is guidance and principles-based regulations, and also research, but with all of this we still need to apply it to our systems and design those ourselves" (B-24, sports betting and casinos). Flexible and customised approaches to interaction may be something that other operators could monitor in terms of enhancing the interaction process.

## Interaction training

More than half of the submissions included information on training undertaken to improve the decision-making process for approaching customer interactions. Most operators who provided information reported offering formalised, regularly scheduled training to ensure that staff were current on best practices and new developments. In-house training was normally offered by team leaders in the areas of social responsibility, safer/responsible gambling, and customer operations teams. As noted by this operator,

Several of our team have undertaken specialist training in responsible gambling and this training has been passed on to those who conduct the interactions with our customers. The training breaks down each step of the interaction, from introduction, to tone and language, all the way through to how to appropriately take the next steps (O-11, multiple forms).

Another operator described an in-house training process as well as external training requirements for employees in specific departments. Their comprehensive approach to interaction training is outlined below:

- › In order to ensure that our employees are following the correct procedures, training and refresher training is carried out by the Social Responsibility Team Leader who has created and maintains a 'Customer Interaction Training Guide'. They are also responsible for maintaining a record of when all training has occurred.
- › We also utilise the SMP Compliance Training Academy and assign relevant training material to all staff within the Responsible Gambling Team as well as all internal staff as well as our white label partners, to assist them with being able to identify and highlight customers who may need an interaction by our Responsible Gambling Team. We maintain a register of all training material assigned along with the results (O-02, sports betting and casino).

Of note is their adherence to record keeping during the training stage. One operator commented that, "Department heads receive reports or flags for 'incompletions' to ensure that valid reasons for incompleteness are given (e.g., maternity)" (O-15, multiple forms). This suggests that full completion of interaction training is considered highly important by this operator, at least, and no doubt by others.

Records of customer interactions can become training materials. For instance, "the availability of RG Interaction log serves as a training tool for the agents and added feedback allows for ongoing improvements as well as constant interaction outcome monitoring" (O-10, casino and sports betting). Regular monitoring of the interaction records is part of a larger process to improve interaction outcomes. The operator continued by stating that, "regular summarising emails, assessments, meetings, and training sessions give room for exchanging ideas, brainstorming sessions, and often leads to revision of existing solutions in order to continuously increase efficiency". This provides an example of how formal training, reporting, and less formal meetings can work together to optimise interactions with customers.

Operators also worked with external trainers. Again, training offered by GamCare was valued by many operators due to the high level of expertise and different course offerings that address specific areas of interest and need. For example,

We undertake training issued by GamCare in regard to interactions and behaviour change. It is important that we take learnings from the experts in this area. The training that we have undertaken and will undertake again this year with more staff is: Social Responsibility, Communication and Motivating Behavioural Change (B-24, sports betting and casinos).

One operator accessed “bespoke training from Samaritans on customer vulnerability” (O-18, sports betting and casino). Another mentioned multiple sources of external training. Along with GamCare, they used, “PML training (Harris Hagan) and AML training (Gambling Integrity)” (O-15, multiple forms). This operator spoke of the value of attending conferences such as KnowNow and ICE because they “allow us to participate and listen to both operator and advisory groups such as charities where discussions centre around new and emerging trends and approaches to consider” (O-17, sports betting and casino). These external resources were seen to be useful by those who accessed them.

Training differed according to employee responsibilities. Most reported that all employees received responsible/safer gambling training to sensitise them to players who may be at risk of or experiencing gambling harms. Beyond that, more specialised training was provided to employees who would be interacting with the players or supervising those employees. For example, in this organisation, “high level training is completed and refreshed for all teams, and enhanced training is completed specific to VIP, RG, and Customer Support teams” (B-18, sports betting). The same operator also reported that “Front line teams are trained on completed Responsible Gambling Interactions, while more in-depth conversations are performed by teams with further enhanced training, including GamCare and Mental Health First Aid”. The goal was to ensure that all customer facing employees were well equipped to make appropriate decisions for customer interactions.

This stepped and increasingly specific training was outlined in detail by another operator (O-17, sports betting and casino). They described three levels of training, delivered through online and face-to-face formats. Level 1 provided general information useful to all employees about RG, problem gambling, and the company commitment to RG. Level 2 had more in-depth information about the gambling risk spectrum and some intervention techniques such as motivational interviewing. It was delivered to customer facing employees only. Both Level 1 and 2 were delivered in-house. Level 3 training was even more in-depth, and was conducted by external experts such as GamCare, treatment providers, and experts by experience who were in recovery. Offering regularly scheduled training with attention to employees’ information needs may be a useful and viable process for enhancing customer interactions.

Another part of customer interaction training involved recognising when staff were not equipped to deal with customers at certain points along the risk spectrum. As this operator related, “Training covers the identification of potential problem gambling behaviours and provides staff with the skills required to interact with customers who are facing problem gambling issues and to escalate such issues when required” (B-16, betting, gaming and gambling). As important as it was to know how to interact with customers, it was equally important to understand when a more experienced staff member should be involved.

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## Summarising interaction

Operators chose the best way to interact with customers by taking several factors into account. They began by assessing reports or flags generated by algorithms to determine the risk threshold of customers identified for interaction. This usually activated automatic responses such as pop-up messages or live chats. When more personalised interactions were needed at higher threshold levels, employees drew upon internal resources and their own training to navigate the interaction. Although the decision-making process and modes of interaction used by some operators appeared to be standardised, a few operators commented on the need for flexibility since customers are not identical and sometimes a different type of interaction could be more effective.

Both in-house and external training progressed in stages and along regular schedules. Among those who described training processes, a stepped approach was used most often, with increasingly specific training provided to customer facing staff and those in positions of responsibility. Training was often delivered in-house — either online or in person — by highly trained staff members who had themselves received more intensive training, often from external stakeholders such as GamCare. This enhanced their ability to select the most appropriate form of interaction and to provide training to others along with advice when challenging situations arose. A few operators reported their interaction training processes in detail. It is not known whether this level of attention to training is typical across businesses, or if these operators placed a higher value on customer interaction training than others.

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## EVALUATION

This section addresses evaluation in terms of how operators determine whether an interaction has achieved the intended results. Prompts for considering this question included customer feedback and changes in customer behaviour. Also of interest was how operators know whether the *correct* approach was used. For example, are independent or internal evaluations conducted, or do they rely on something else? In this section, responses are grouped into six broad categories including administrative practices, monitoring and analysing accounts, communicating with customers, seeking continuous improvement, accessing external resources, and training for evaluation activities.

Operators' evaluations of customer interactions contributed to two streams of information, as summarised by this operator: "(1) evaluating customers at an individual level, and (2) evaluating what is working at a holistic level across all customers" (O-26, multiple forms). This is important to keep in mind when reviewing the scope of information. Some operators gave detailed accounts of evaluation processes that demonstrated highly evolved systems, others summarised primary activity areas only, and a few provided only broad brush strokes when describing their approach, such as this operator who stated, "Influenced by direct communication with customers via chat, email or phone. Monitoring of accounts and regular meetings ensure that we identify areas for improvement if required" (O-05, multiple forms). Most, however, shared more in-depth information that could potentially be used by others.

## Administrative practices

Record keeping was essential to properly evaluate outcomes. All operators who provided information beyond the most basic level mentioned interaction records as a starting point. Comments such as the following were typical:

We keep records of all customer interactions and use these to help support individual customers and to help us keep improving the processes we have in place (O-02, sports betting and casino).

. . . we collect data on the number of interactions that have taken place, the type of interaction and the outcome of the interaction. Our RG team also ensure they provide an update on the effectiveness of interactions (O-11, multiple forms).

In evaluating interactions, the Responsible Gaming Team use internal data analysis of customer activity before and after each customer interaction (O-12, multiple forms).

Without accurate records, there was no baseline from which to proceed when evaluating either successful interactions or areas in which the interaction process needed to be refined. Further, some operators mentioned using the interaction log as a training tool, since it also included feedback about outcomes that would allow for ongoing improvements to be made. This is a practice that other operators could adopt if they were not doing so already.

A few operators shared their workflow for evaluations. It usually began with a case ticket being assigned so that an audit trail could be created. As this operator describes, "It then goes into the hands of the dedicated Responsible Gaming Team, is followed up to the Customer Service Team leader, who then explains the case resolution and lists potential changes, if needed" (O-10, casino and sports betting). Another operator forwarded all interaction cases to the Social Responsibility team where reviews are completed across Customer Service, Player Relations, and the Player Experience teams. The goal is to ensure that "decision outcomes are correct, and escalation processes are followed correctly" (B-18, sports betting). By sharing across multiple teams, different perspectives and experiences could be integrated into the evaluation, and more team members were made aware of any issues that arose.

Operators scheduled customer interaction evaluations at regular intervals to ensure that they could act on any pressing or ongoing issues. It also allowed them to understand where there was room for improvement. As this operator summarised, "We aim to understand the impact of the interaction on the customer, and the effectiveness of our actions and approach" (O-13, multiple forms). The scheduling of evaluations described by operators ranged widely from daily to "at least once a week" (O-10, casino and sports betting), to monthly, quarterly, and less precise intervals such as "on a recurrent basis" (O-15, multiple forms) or "periodically" (O-13, multiple forms). One operator commented that, "With a 24/7 team of specially trained safer gambling executives we can ensure we are *continuously* monitoring and reviewing customer interactions" [emphasis added] (B-19, multiple forms). Depending on the nature of the evaluation, operators could use multiple time frames, as outlined in the example below:

Daily, weekly and monthly data reporting insights and key performance metrics are used to evaluate the impact of our processes. These include but are not limited to the outcomes below:

- › Monitoring for positive changes in volume decrease and percentage of at-risk customers identified in our model
- › Monitoring the percentage of customers who set a responsible gambling tool post interaction
- › Reporting in place to monitor revenue from at-risk customers
- › Google analytics data to monitor customers who visit our responsible gambling microsites or player protection help centres (B-18, sports betting).

It was clear that the operators understood the importance of regular scheduling for their customer interaction evaluations. It may be that some were not scheduling evaluations as regularly as might be optimal, so this could be an area for operators to review.

A few operators commented on building processes for quality assurance into the work flow. For example, this operator shared that “We quality assure individual customer interactions by spot-checking our records, spreadsheets, emails and calls” (O-02, sports betting and casino). A few others reported pulling a small subsample of accounts (“dip testing”) for spot-checks and comparisons along evaluation metrics. One operator noted that, “Second line Quality Assurance work assesses how well we are performing against our own policies and processes and enable us to identify areas for improvement, coaching, and learning” (B-22, multiple forms). Another noted that their Quality Assurance Committee played an important role in evaluating interactions. Not all operators appeared to have such a committee. Instead, they seemed to rely on other teams such as Compliance and/or Responsible/Safer Gambling. Of note is that quality assurance was not well defined by the operators. It could have been related to identification, staff interactions, availability of responsible gambling tools, or something else. It also raises questions about the outcome criteria against which to assess quality, and the extent to which they vary by operator.

## Monitoring and analysing accounts

Monitoring customer accounts for behaviour change and financial expenditure is the most typical approach to evaluating customer interactions. Again, the advantage of remote gambling is that account information is readily available to operators, so monitoring customers is more easily accomplished than for land-based operations. The goal is to see a reduction in the number/percentage of customers deemed at risk of or experiencing gambling harms.

Evaluation metrics are based on trend and behaviour analysis, with many identifying similar indicators for analysis. For example, this operator reported monitoring the following areas:

- › Reductions in problem gambling rates
- › Understanding how customers utilise gambling tools
- › Changes in key financial or behavioural metrics
- › Correlations of interactions and changes in behaviour
- › Success of interactions resulting in customers positively improving behaviour
- › Product/Channel (B-17, betting and gaming)

Similarly, another operator shared key performance indicators such as “bet less, bet the same, bet more, self-excluded, churned, and no activity” (O-07, gaming and gambling). There was little variation in the types of metrics, although there were substantial differences in the depth of information provided by operators in this area. One operator (B-17, sports betting and casino) stood out as being exceptionally thorough in the list of metrics they shared, ranging from a rating of contact content to customer journey reviews.

Still, at least one operator observed that for some customers, conclusively measuring a change in activity could be difficult. When a prescribed time was set for behavioural change, they advised that it was important to remember that not all customers escalated or reduced their behaviours at the same rate. Therefore, some discretion was needed in evaluating metrics to accommodate individual differences.

Making use of RG tools was mentioned by many operators as an important indicator of a successful interaction. RG tools were commonly monitored pre- and post-interaction. For one operator, these included, “deposit limits, session warnings, reality checks, time-outs, and self-exclusion” (B-14, multiple forms). Another operator demonstrated the prominence of this metric by posing two key questions: “Has the customer ever made use of any player protection tools? And, has the customer used a player protection tool after an interaction?” (O-26, multiple forms). Similarly, this operator situated the use of RG tools as a primary goal of customer interactions:

- › The objectives of our systems and processes are clear: to raise awareness of responsible gambling tools and behaviours; and through this: to facilitate an increased uptake of responsible gambling tools; and
- › To encourage a positive change in the identified behaviour (O-16, betting, gaming and gambling).

It is unclear whether a positive behaviour change without the uptake of an RG tool was enough for the interaction to be deemed a success. For most operators, the use of RG tools was an essential metric, although among operators who provided more detailed information, it was not the sole metric upon which they relied.

## Communicating with customers

Some operators mentioned including feedback from customers as part of the evaluation process. One operator felt customer feedback was, “critical in assessing what works and what does not work” (O-23, multiple forms), and continued by stating that “Feedback from customers and changes to behavioural patterns of individual customers, post interactions, are our method of assessing if our processes are working.” Not all operators followed up with customers after each interaction. Whether feedback was requested could depend upon the type of interaction that had occurred, as this operator shared:

Customer feedback as to the quality and effectiveness of our interaction is proactively requested in certain situations where the nature and merits of the particular customer suggest that it is appropriate to do so, but is not requested at a customer wide level after every interaction (O-12, multiple forms).

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Even so, customer feedback was viewed as an important component of the evaluation process. One operator reported that their evaluation of a successful interaction, “did not rely solely on the customer’s account metrics but was also influenced by direct communication with customers via chat, email, or phone” (O-05, multiple forms). Personalised feedback from customers could offer important insights into interaction outcomes. Not only could the operators gather detailed information about customers’ perceptions of the interaction, direct communication could have additional benefits for staff, as this operator described:

The customers often come back to us thanking us for the proactive reaction, stating that it has helped them out in controlling their gambling activity. It is a meaningful insight to notice how the agent’s conversation can have a real impact on the players’ decisions and having the direct evidence of the ‘cause and effect’ exchange is also a motivating element for our staff members, thereby making the employees’ efforts worthwhile (O-05, casinos).

Sometimes interactions did not have the desired outcome. As part of the evaluation, a few operators mentioned that, on occasion, a customer may need to be contacted multiple times when their activity patterns show that at-risk behaviour was not subsiding. Normally, there were thresholds for the number of occasions the customer was contacted during a set time period before a more personalised interaction was needed. In these cases, the customer was often contacted by telephone. Clear notes were added to the customer’s account file, and the customer was given the opportunity to provide feedback about any concerns they may have had relative to the previous interaction.

A couple of operators had conducted research in-house about the effectiveness of their communication strategies. Although projects differed, for email communication they were able to determine the email open rate and the click through rate to information on responsible/safer gambling. This type of research would be relatively easy to undertake using control and intervention groups and may assist operators in improving messages and subject lines for email interactions.

## Seeking continuous improvement

Like the operators involved in the research described above, several others actively worked toward improving evaluation. Almost three-quarters of the operators mentioned that a feedback loop for continual improvement was part of their evaluation process. Some commented that the improvement of interaction techniques was dynamic and developing continually, as illustrated by this operator: “The evaluation of interactions is an area that we recognise is an iterative and evolving process as new learnings are fed back in to the evaluation process” (O-26, multiple forms). Another noted that, “We evaluate our approach each month, use that to update our processes, and to share good practice internally and with the rest of our partners” (O-02, sports betting and casino). The importance of regular reviews to identify areas for improvement was a common theme among operators, as was putting changes into action. As this operator related, “Our RG team ensure they provide an update on the effectiveness of interactions. Where improvements in our approach to interactions can be made, these are implemented immediately” (O-11, multiple forms). To summarise, these operators paid careful attention to reports and other information that would allow them to improve their evaluation techniques and acted upon it.

Areas of evaluation in need of improvement came to the attention of operators through regular, ongoing reviews. They also surfaced when interactions were unsuccessful. One operator discussed internal systems for responding to such interventions that included escalating it to team leaders in departments such as Compliance, Customer Service, Responsible Gambling, or the Chief Operating Officer who would decide on another approach to interacting with the customer. Then, any concerns would be, “raised and analysed at the monthly Social Responsibility committee meeting” (O-02, sports betting and casino). Another operator recognised that not all outcomes are successful every time:

. . . if we do not believe we have had the intended reaction, a different approach is used. There is no one size fits all, and different styles can be needed for different customers to ensure we are satisfied. Our own evaluation is used heavily (O-01, sports betting).

It was important to remain flexible and open to other approaches when evaluation suggested a problem with the interaction. This could also be used as a learning opportunity since not all customers respond to an interaction approach in the same way. In general, operators provided few comments about how ‘unsuccessful’ interactions were addressed. This type of information could be beneficial to other operators if it were more widely shared.

A few operators reported on upcoming projects to enhance their evaluation processes. For example, this operator shared that “Going forwards, we intend to trial additional language and message testing in a variety of situations, as we need to ensure that all safer gambling communications are designed with their audience and intended outcome in mind” (O-07, gaming and gambling). Another conducted a Responsible Gambling survey with their customer base, “to understand the users’ familiarity, knowledge, understanding, and overall awareness about the various RG tools we offer them, and to improve these subjects accordingly” (O-13, multiple forms). One shared that they were in the process of “developing a reporting and evaluation tool to build upon the ‘funnel’ report, which will ensure that any outcomes from the test and learn strategy are effectively analysed and fed back into the business” (B-14, multiple forms). These strategies for improvement could be considered by operators who are not currently as active in pursuing enhancements to their evaluation techniques.

## Accessing external resources

A few operators commented upon how external resources were incorporated into their evaluation system. A couple mentioned involving a third-party compliance expert to monitor interaction evaluations. One spoke of pursuing GamCare’s Safer Gambling Standard accreditation,<sup>22</sup> “to ensure we are identifying, interacting, and evaluating effectively” (B-01, sports betting). Others shared links and references to various helpful resources, including Gambling Commission reports for Social Responsibility, Customer Interaction, and the 2018/19 Enforcement Report, as well as the Guidance for Remote Operators. Stakeholder reports such as the Senet Markers of Harm and the RGSB Evaluation Protocol were also mentioned. Only one operator mentioned modelling, “...some of our evaluation work on public health evaluations” (O-22, multiple forms), and no operators referred to the academic literature. To be fair, academic research in this area is extremely limited; however, public health evaluation literature is well-developed and could provide some useful insights.

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## Evaluation training

Unlike identification and interaction, operators offered little information on how staff were trained to conduct customer interaction evaluations. A few noted that learnings from evaluations were shared internally, but mostly this was used to improve interaction outcomes rather than the evaluation process. For example, when asked about evaluation, this operator commented,

We evaluate our approach each month, use that to update our processes, and to share good practice internally and with the rest of our partners...As well as checking that customers are getting the right support, the purpose is also to identify staff development needs and highlight good practice that we can share internally and with the rest of our white label partners (O-02, sports betting and casino).

Another referred to Gambling Commission documents and the iGaming Academy for specialist training courses. In general, however, it seems that evaluation training for customer interactions was not well addressed by operators who submitted information to the repository.

## Summarising evaluation

Interaction evaluations took place at two levels: individual and organisational. At the individual level, evaluating customer interactions depended upon keeping clear records of interactions so that accounts could be monitored following the interaction. Operators use markers that track behavioural and financial information over time to determine whether a customer has reduced their risk level. The uptake of RG tools is seen as particularly important when deciding whether an interaction was successful. Many operators valued direct communication with customers to learn more about their experiences and feelings about the interaction. This information was not only useful for enhancing interaction techniques, it was also motivating for staff when customers responded positively and changed their behaviours. Some operators spoke about what happens when an interaction is deemed unsuccessful. They reported on processes for change, as well as the need for flexibility in order to address individual customer differences. At the organisational level, some operators mentioned the need for continual improvement of the evaluation process and how this was being approached. Others were involved in in-house research activities to enhance evaluation. Although some mentioned external resources such as third-party compliance experts and specialist training, it seemed more common to refer to stakeholder documents. Training to evaluate interactions appeared to receive little attention, especially when compared to training for identification and interaction.

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# | Discussion

This section is guided by the objectives of the project, which were to trial the provision of a platform where industry could share information relevant to customer interaction; and, to review the information submitted so that an informed framework for future work can be shared with industry.

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## PLATFORM ASSESSMENT

A balanced assessment of the platform needs to include the perspectives of those who developed the trial repository and facilitated submissions, as well as the operators who contributed their materials and accessed others' information. GREO's perspective is presented first, followed by operators' feedback gathered through a brief survey conducted between March 4 to 17, 2020. Survey details and a description of results are provided in Appendix B.

### GREO's perspective

The trial repository represents a preliminary attempt to address the increased emphasis in the Licence Conditions and Codes of Practice<sup>2</sup> on (a) customer identification and interaction outcomes for people at risk of or experiencing gambling-related harms, (b) assessing whether interactions are successful at the individual level, and (c) the effectiveness of the overall approach of the operator. A customer interaction repository that is shared by industry, where operators can easily submit and access information, has the potential to strengthen these priority areas.

As part of their work programme to support the *National Strategy to Reduce Gambling Harms*,<sup>1</sup> GREO developed a basic repository framework for sharing submissions to test the response from operators, as well as a protocol to maintain operator confidentiality. Operators could click on numbered submissions

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to access the anonymised submissions of other operators and learn how their businesses approach customer interaction. A list of external resources mentioned by the operators was also posted to the repository (see Appendix A). It was compiled during the initial coding, with brief descriptions and functional links for each resource. The repository is not searchable by topic or keyword, although those features could be added if the repository were to continue.

Overall, the submission process worked well for GREO. Operators occasionally forgot to submit a Terms of Deposit and Use Agreement, but little effort was needed to remind them to send it along. GREO's Knowledge Management staff received questions from a few operators. Contact seemed relatively straightforward apart from one operator who experienced some difficulty, although was eventually able to connect. The reason for the issue remains unclear. Having a contact at the Gambling Commission also proved helpful to operators who may have had questions about the trial repository and their participation. Communication with operators is an area that would benefit from review if a more permanent repository were to be established. Anonymising and templating the information could be time-consuming, depending on the length and format of the submission. This needs to be taken into account when considering resources that might be required for a permanent repository.

At the outset, GREO had no expectations regarding the quantity or quality of information that would be submitted; rather, we were interested in assessing whether operators would contribute and if submission process was easy to follow. It was encouraging to see that 26 of 68 operators provided usable information aided, no doubt, by reminder messages from the Gambling Commission and a contact person there, as well as an extension of the original submission deadline. Still, it indicates that operators are both willing to share information and that there is an appetite to learn from one another.

In summary, setting up and administering the repository was relatively simple for GREO. A few areas could be more fully considered, such as search functionality, resources needed to anonymise submissions, and optimal contact options. The quality of submissions varied, which had been expected. Overall, though, the strong response from operators suggests that there is interest in having a repository available to share techniques, processes, resources, and learnings with others.

## Operators' perspectives

Operators who had submitted materials were invited to participate in a feedback survey in early March. They were asked questions about their information needs, the submission process, functionality of the repository if it were to continue, and the potential value of the repository. Only nine of 26 operators chose to participate in the survey, so findings must be interpreted with caution (see Appendix B for a summary of the results). It could be that not enough time had elapsed for operators to explore the trial repository. Not only was the number of participants low, of those who did participate, only four were positive that they had logged into the repository prior to the survey.

Despite the low participate rate, the data suggest that the repository could be useful in meeting operators' information needs. They were most interested in learning more about strategies for identifying and evaluating customers at risk of or experiencing gambling harm, best practice guidelines for all three areas of customer interaction, recent research/evidence summaries, and evaluation frameworks or tools for evaluating

interactions. As one operator summarised, “It is really important to get as many perspectives as possible on what might or might not work. As we strive to improve understanding of identification, interaction and evaluation of our approach to reducing gambling related harm it is important knowledge is shared and new ideas tested in a safe space.”

The operators agreed that the functionality of the repository had considerable room for improvement. The most important enhancements would allow operators to quickly access relevant information through direct links or keywords and read summaries of longer submissions rather than the entire document. Being able to interact through a discussion board or view visual or graphic representations of information did not seem to be as important to them.

In terms of the value of the repository to their work, the commentary was generally positive. One operator noted though that the extreme variation in the effort and quality of submissions could be standardised to some degree. This would support commitment to RG programmes and a more collegial approach to information sharing.

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## ROBUSTNESS OF SUBMISSIONS

Given that this was a trial repository and operators were not provided with examples, submissions varied substantially in depth and breadth. Only nine operators submitted information that was rated as either ‘very’ or ‘highly’ applicable. Two operators’ submissions were off-target (focussing on RG/Safer gambling more broadly) with a rating of ‘low’ applicability, and the other 15 submissions were rated as having either ‘some’ or ‘moderate’ applicability. Greater consistency could be achieved in the future using examples and instructions for operators to perhaps think about what others might find useful. That could result in more specific information, as opposed to general comments that are unlikely to advance knowledge.

Of the three areas for which operators were asked to submit information, identifying customers at risk of or experiencing gambling-related harms was, by far, the most thoroughly addressed. Operators shared extensive information about risk identification algorithms, in-house and external research, useful resources, and training materials and processes. It was apparent that they were well-versed in this area, even though some of the practices, such as a reliance on markers derived from people who had self-excluded, have limitations. Most indicators of at risk behaviour adhered to the general categories used in gambling research including frequency (activity/time period), intensity (how often bets are placed on gambling days), variability (change in spend over time), and trajectory (total spend).<sup>23</sup> Identification was an area where operators were more likely to refer to academic literature, since information is widely available about gambling across the risk spectrum and characteristics of people who experience harms from gambling.

Interaction received less attention than identification, but operators still provided enough information to suggest areas of strength and where there might be some gaps in practice. Operators were largely reliant on automated responses for low risk customers, although some discussed the importance of flexibility in approach and the need for customised interactions on occasion. Again, they mentioned drawing upon many external resources. These resources were more likely to be materials and training provided by stakeholders, consultants, and the Gambling Commission since academic research on customer interactions is so limited.

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Evaluation received the least attention. Although all operators appeared to be conducting evaluations, there was substantial variability in processes, scheduling, and outcome metrics. Many put considerable stock in the uptake of RG tools to measure success although, like self-exclusion markers for identification, there are limitations to this approach. Qualitative information from customer interactions seemed to be under-used, with a much greater emphasis on behaviour patterns and financial information available through customer accounts. Finally, information related to evaluation training was largely absent when compared to identification and interaction.

Overall, it was encouraging to see that operators placed great value on record keeping. This allowed greater accuracy in processes related to all three areas. Submissions could have been enhanced in each section by sharing information about what does not work well, since that is often equally informative and provides a basis for comparison. A few operators were forthcoming with this type of information, but generally they focussed on what worked best for their business. What remains unknown is how resources are allocated to the three areas. It is unlikely that they are equal for each, but all require sufficient staff and a budget that allows customer interactions to proceed effectively.

## Feasibility for expansion

In conclusion, operators' level of participation suggests that there is an appetite for sharing with and learning from other operators regarding customer interaction. The diversity of submissions to the trial repository was expected but could be minimised by providing operators with examples and clear directives. There was also variation in the depth to which each of the main topic areas was addressed, which suggests that knowledge of identification, interaction, and evaluation is uneven. As such, there is likely a desire to fill those knowledge gaps, and a permanent repository may create the opportunity to do so. The operator feedback survey also suggests that sharing knowledge through a repository would be helpful for the review and enhancement of customer interaction policies, practices, and techniques.

The trial repository was simple in structure. In the future, greater functionality with the ability to search by keyword, topic, or perhaps even gambling form could improve it substantially. Further, it would be necessary for whoever has responsibility for the repository to proactively pursue submissions at regularly scheduled intervals. Staff time would need to be allocated to updating as well as anonymising submissions. Evaluations should also be conducted at least annually to ensure operator needs are being met. Whether a permanent repository is feasible will depend largely on who takes responsibility for keeping it current, whether there are adequate resources to do so, and how active participation and operator use will be promoted.

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# I Recommendations

In summary, when reviewing operators' submissions, it was evident that they paid considerable attention to identifying customers at risk and interacting with them in a way deemed appropriate to their risk levels. Less information was provided for the evaluation process, but it was still seen as an integral component. In some cases, either due to poor submission quality or perhaps operator oversight or omission, relevant information was lacking. This suggests that more could be done to enhance submissions if the repository were to continue. Further, there were some areas where more evidence to inform identification, interaction, and evaluation would be useful. Recommendations are provided below to improve the quality of the repository and to advance knowledge in specific topic areas.

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## ENHANCING REPOSITORY QUALITY

- 1 *Develop a template for consistency of operator submissions.* We initially provided a clear, plain language scope for submissions that allowed considerable latitude in terms of depth and breadth of the information operators shared. As a trial repository, there were few guidelines beyond general information categories, helpful prompts, and a list of example outputs. If the repository were to continue, a template could help to streamline submissions to allow greater consistency between operators in the focus of materials and, potentially, the depth of information provided. Examples could be provided to help to ensure that operators' submissions are specific to customer interactions and not, for example, to responsible/safer gambling programmes more generally. The template would need to be accompanied by a purpose statement with clear objectives for information sharing. Further, it would require a standard list of variables and the same criteria for submission by all operators, regardless of size.
- 2 *Share external resources.* Identifying and/or providing reports, as well as information about consultants and stakeholder services, would be relevant to all operators, particularly in areas like evaluation where internal resources appear to be limited. At the same time, consideration

would need to be given to keeping the information up to date. Resources are needed for regular revisions since there is a risk that information will become dated if not monitored and kept current.

- 3 *Encourage submissions from businesses of all sizes.* Operators who submitted materials were large or medium size businesses, and smaller businesses appeared to be completely absent. Greater representation in operator size would likely lead to more comprehensive information in the repository. Although information related to identification is likely similar, there may be differences in interaction and evaluation processes due to business size. Insights regarding how and why these differences exist, and how to use them for optimal interactions would be useful.

It could also be that differences may be due not only to size, but also to the resources deployed to address these issues. Is it possible that some businesses may be able to allocate funds to identification and interaction, but that funds are more limited for evaluation? Information is also needed regarding constraints to achieving optimal interaction, whether related to budget, human resources, or other factors.

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## ADVANCING KNOWLEDGE OF IDENTIFICATION, INTERACTION, AND EVALUATION

### Identification

- 4 *Continue refining algorithms.* All operators reported using algorithms to identify customers at risk of or experiencing gambling harms. Some relied mainly on markers recommended by external consultants, such as the Markers of Harm developed by PwC,<sup>12</sup> whereas others would combine this information with markers developed through testing their customer base. When identifying customers at risk, operators need to consider a broad range of markers, some of which may be contextually specific. More research is recommended to refine algorithms by taking a broader range of factors into account. Mapping player behaviour and expenditures is limited when devoid of data on factors such as income adequacy, personality traits, and mental illness, but due to privacy laws it may be difficult to find a bridge to link the two. Still, if at all possible, this information would allow greater insights in the predictive accuracy of risk levels.
- 5 *Expand metrics beyond markers of self-exclusion.* Some operators relied on data from the accounts of people experiencing gambling harms who had self-excluded to support their risk identification algorithms. Although effective in some cases, research suggests that this approach is not fail-safe. As Deng, Lesch, and Clark note, "...widely used indicators of problem gambling (e.g., self-exclusion, account closure) are imperfect, and algorithms will need to generalise beyond such specific indicators".<sup>24, p.4</sup> There are multiple factors that can encourage or discourage self-exclusion. Further, accurate identification is related to the type of machine learning methods, some of which are better than others at predicting gamblers who self-exclude.<sup>25</sup> A greater understanding of what techniques are most useful and, importantly, the limitations of relying on self-exclusion data could be helpful for customer identification practices.

- 6 *Make greater use of customer communication data.* About half of the operators reported using customer communication data to some extent, but there could be more opportunities to integrate this valuable, qualitative data. Both content and tone of communications with customers can be integral to the early identification of at risk behaviour.<sup>26</sup> Staff training would be useful to elicit the right information upon which to base reports and assessments. Operators could also monitor customer communications more closely using a combination of automated and manual techniques. Automated lexical searches, for example, are relatively easy to set up and could quickly flag someone who needs immediate follow-up.<sup>27</sup> Other ways of accurately tracking communication and intervening more quickly could be examined.
- 7 *Incorporate manual techniques.* Large databases of customer accounts encourage reliance on automated responses to flag at-risk customers; however, operators who also used manual identification techniques reported that these were also valuable in determining which customers could benefit from an interaction. More information is needed about manual techniques and how to incorporate qualitative information related to employees' experiences into successful identification processes, understanding that the extent to which manual techniques are used could be reliant on adequate training and resources.

## Interaction

- 8 *Explore opportunities to become more interventionist at different risk levels.* Many operators seemed to have prescriptive approaches to interaction depending on the customers' risk level. It could be useful to examine whether stronger, more interventionist approaches at different risk levels would produce different outcomes and, if so, with whom and why. This would provide operators with a wider menu of interactions that could be tailored to specific customers or groups. Note that, again, this is reliant on staff training, and adequate resources to provide and pay for it.
- 9 *Consider demographic information when interacting with customers.* Less than one-quarter of the operators referred to demographics when identifying or interacting with customers. Specifically, they mentioned age group and gender but overlooked other factors that might be accessible through customer accounts or other sources. More research is needed to establish whether interactions are perceived differently or are more successful depending on specific demographic factors, so that approaches to identification and interaction can be modified accordingly. Again, certain information would be subject to privacy laws, but directed research projects using survey rather than account data would allow players to voluntarily participate and share demographic information if they chose to do so.
- 10 *Consider multiple ways of interacting.* When operators described the interaction process at different risk levels, they appeared to use a single interaction type (live chat, pop-up message, etc.) that changed as behaviours escalated. These interaction techniques have been established as effective to varying degrees on their own, but it would be beneficial to examine whether multiple approaches are more effective and, if so, which combinations and at what risk level(s).

- 11 *Support flexibility and customisation.* A few operators commented that despite a fairly rigid, stepped approach to customer interaction, it is important to consider individual differences. The 'one size fits all' approach meant that interactions that worked well for some customers did not necessarily work with others. A better understanding of what flexibility and/or personalisation looks like is needed. With whom is it most effective, and when does it need to be employed? Ultimately, this would be linked to staff training to identify what works best with different types of gamblers, and how to interact appropriately.
- 12 *Adapt interactions to customer base and gambling form.* Many operators offered multiple forms of gambling. Some forms are more likely to attract a specific customer base than others, and it may be that, in general, these customers respond differently to interactions designed for a broader customer base. Some operators include gambling form in their at-risk algorithm for identification, but more research could be undertaken to determine the most effective methods of interaction with customers who are most active in specific gambling forms. Further, those who engage in multiple gambling forms are often at higher risk,<sup>28</sup> which suggests a need for ongoing research in this area and an integrated database across operators.

## Evaluation

- 13 *Consider individual differences when evaluating interactions.* Many operators had time limits in place following an interaction to determine whether it was successful. It is important to remember that not all customers will escalate or reduce their behaviours at the same rate. Therefore, some discretion is needed in evaluating outcome metrics to allow for individual differences. Research examining customers whose time frame for behavioural change varied substantially from the time allotted by the operator is needed. If consistent patterns were identified, it could be useful for customising evaluation metrics.
- 14 *Optimise the scheduling of customer interaction evaluations.* Operators reported a wide range of time frames for evaluation scheduling ranging from "continually" to "periodically". More information is needed to better understand optimal scheduling for addressing customer needs, as well as for meetings designed to improve the evaluation process itself.
- 15 *Consider standardised quality assurance processes.* There seemed to be considerable variation in responsibility for quality assurance when evaluating interactions. Some operators manage quality assurance in-house, whereas others will use a third party. This raises questions about standardisation and consistency. More information is needed about what is being examined for quality assurance. Different approaches to quality assurance could be tested to ensure the thoroughness of evaluations.
- 16 *Enhance evaluation training.* Training for identifying and interacting with customers appeared to be well developed and systematised among operators, but there was an almost complete lack of information provided about training for evaluating customer interactions. More attention could be given to optimal approaches to evaluation training so that the most effective measures are employed to improve interaction outcomes in the future. Again, this may be limited by available resources.

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## OPERATORS' RESOURCES FOR IDENTIFYING, INTERACTING, AND EVALUATING INTERACTIONS

This document lists resources identified by operators in their submissions to the trial Customer Interaction Repository. Descriptions of resources are taken directly from website information. Some descriptions have been adapted to a plain language format for ease of understanding. Links are provided if more information is desired.

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### WEBSITES

#### Gambling Commission

##### **Social responsibility**

Social responsibility, also known as safer gambling, is a form of protecting people from gambling-related harm. Three licensing objectives support the basis of gambling regulation:

- 1 Crime should be kept out of gambling.
- 2 Gambling should be conducted in a fair and open way.
- 3 Children and other vulnerable persons should be protected from harm or exploitation from gambling.

For more information on Social Responsibility, please refer to this [link](#).

##### **Customer interaction**

A key area of safer gambling is customer interaction and being able to identify when a player is at risk of harm. There are three types of identifiers for at risk customers:

- 1 Are they staking large amounts?
- 2 Are they gambling for a long period of time?
- 3 Are they displaying risk factors in their gambling behaviour?

For more information on Customer Interaction, please refer to this [link](#).

##### **Affordability and customer protection**

According to the Enforcement Report 2018/19, disposable income data identifies clear benchmarks that should drive social responsibility triggers, which help identify gambling-related harm by affordability. These triggers should be set at a level so that most of the customer base is monitored according to the open source information. To date, there is nothing to indicate that gamblers have more disposable income than the general population. Benchmark triggers would be a starting point for engaging with customers, by identifying instances when an operator needs to understand more about a customer, their play, and affordability.

For more information on Affordability and Customer Protection, please refer to this [link](#).

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### **Remote Gambling and Software Technical Standards, Licence Condition 2.3.1**

Remote Gambling and Software Technical Standards detail the specific standards and security requirements, that licensed remote gambling operators and gambling software operators need to meet. It comprises:

- › Technical standards
- › Security requirements (which are a subset of the ISO/IEC 27001: 2013 standards)

From April 1st, 2018, the [remote technical standards](#) (see RTS 2C) have required that operators' systems enable customers to choose whether to accept price fluctuations (in either direction) that occur after their bet is requested. This requirement applies to both fixed odds betting and betting exchanges.

For more information on the Remote Gambling and Software Technical Standards, please refer to this [link](#).

### **GamCare**

Founded in 1997, GamCare is the leading provider of information, advice, and support for anyone affected by problem gambling. Gamcare operates the National Gambling Helpline, provides treatment for problem gamblers and their families, creates awareness about responsible gambling and treatment, and encourages an effective approach to responsible gambling within the gambling industry.

For more information on GamCare, please refer to this [link](#).

### **Sustainable Interaction — Sustainable Gambling**

Sustainable Interaction offers several products and services for responsible gambling to operators. Their products and services provide players with information about their personal gambling, while the gambling operator is given access to in-depth information about the health status of their players. This allows organisations to take sustainable, long-term, and functional measures to protect their players from harm.

For more information on Sustainable Interaction and Gambling, please refer to these links: [1](#), [2](#).

### **Gamstop**

Gamstop is a free service for individuals residing within the UK (Great Britain and Northern Ireland) that allows consumers to put controls in place to restrict their online gambling activity. Once an individual signs up, it can take up to 24 hours for self-exclusion to become effective. The individual has an option to exclude themselves for a period of 6 months, 1 year, or 5 years, and will remain excluded, unless they have contacted Gamstop directly to request to be removed by going through the relevant procedures.

For more information on Gamstop, please refer to this [link](#).

## PricewaterhouseCoopers (PwC)

PricewaterhouseCoopers (PwC) is the leading professional service firm with a purpose to contribute towards positively impacting society and solving important problems. Their strategy is built around five priorities:

- 1 Being technology enabled
- 2 Delivering exceptional value to clients
- 3 Empowering their employees
- 4 Leading by example
- 5 Investing in sustainable growth

For more information on PwC, please refer to this [link](#).

## The Mix

The Mix is a free, multi-channel, confidential support service for youth aged 13–25 years old experiencing a wide range of problems. From homelessness to finding a job, managing money to mental health, dealing with emotional distress or drug abuse, The Mix can connect individuals with experts or peers who have knowledge about the issue at hand. The website identifies six questions that may determine whether gambling is becoming a problem if answered 'yes' to more than one:

- 6 Have I ever lied about my gambling or lied to get money for it?
- 7 Do I spend more than I can afford on gambling?
- 8 When I lose money, do I want to gamble more to win back my losses?
- 9 Is gambling an escape from the stress and worries in my life?
- 10 Have I ever missed school, college, or work to gamble?
- 11 Do I think about gambling when I should be doing other things?

For more information on The Mix and Problem Gambling, please refer to these links: [1](#), [2](#).

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## REPORTS AND NOTES BY THE GAMBLING COMMISSION

### Customer Interaction — Formal Guidance for Remote Gambling Operators

The Licence Conditions and Code of Practice (LCCP) released a requirement, effective October 13, 2019, that all licensees must consider Gambling Commission's guidance around customer interaction. This guidance is structured around the three key outcomes that operators will be expected to meet: to identify, interact, and evaluate. This guidance sets out why customer interaction is a requirement, makes expectations clear, and suggests ways that operators could meet them.

For more information on Formal Guidance for Customer Interaction, please refer to this [link](#).

### **National Strategy to Reduce Gambling Harms**

The Gambling Commission introduced a National Strategy with the aim of reducing gambling harms affecting individuals, families, and society, over the next three years. This strategy lays out the public health approach that is needed, across a range of stakeholders and delivery organisations, to have the maximum impact in reducing gambling harms:

- › Define the problem
- › Identify risk and protective factors
- › Develop and test prevention and treatment strategies
- › Ensure widespread adoption

Specifically, this strategy will focus on combining efforts on two strategic priorities: prevention and education; and treatment and support:

- 1 Prevention and education: To make significant progress towards a collective and clear prevention plan, applying the right mix of interventions.
- 2 Treatment and support: To make significant progress towards truly national treatment and support options, that meet the needs of current and future service users.

For more information on the National Strategy, please refer to this [link](#).

### **Gambling Participation 2018: Behaviour, Awareness, and Attitudes Annual Report**

This report presents annual estimates of gambling behaviour in Great Britain in 2018 and represents the Gambling Commission's regular tracker of gambling participation. The data was gathered through a combination of telephone and online surveys with people aged 16 and over, conducted independently by Populus. The datasets cover the past four-week participation rate, online gambling behaviour, consumer awareness of gambling management tools, and perceptions and attitudes towards gambling. Rates of problem, moderate, and low-risk gambling were taken from the Combined Health Survey 2016, due to its use of the full Problem Gambling Severity Index and DSM-IV screens.

For more information about this report, please refer to this [link](#).

### **Gambling Participation 2018: Technical Annex**

The Technical Annex acts as additional information following the Gambling Participation in 2018 Annual Report. It summarises methodological aspects of the surveys used to produce the report. This includes information on sampling, questionnaires, weighting strategies, and margins of error. The report is divided by survey:

- › Telephone survey — used to produce overall estimates of rates of gambling, problem gambling, and perceptions of gambling
- › Online survey — used to explore the behaviour of online gamblers, including device use, location of play, and number of online accounts

For detailed information about the Technical Annex, please refer to this [link](#).

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### **Gambling Behaviour in Great Britain, 2016**

The purpose of this report was to provide updated estimates of gambling participation, problem gambling, low risk gambling, and moderate risk gambling in England, Scotland, and Wales, based on data collected in 2016.

For more information about this report, please refer to this [link](#).

### **Young People and Gambling**

This report identifies findings from the annual Young People and Gambling Survey, conducted in 2019 by Ipsos MORI, on behalf of the Gambling Commission. The research was conducted among 11–16-year-olds across Great Britain, to identify the prevalence of gambling, explore gambling behaviour, and understand attitudes among young people. The findings are based on data from a representative sample of 2,943 young people in grades 7 to 11. The survey covered the following key issues:

- › Young people's rates of gambling on different types of games
- › Behaviour patterns of young people in relation to gambling
- › Experience of online gambling and 'gambling-style' games
- › Perceptions and awareness of gambling advertisements/sponsorships
- › Attitudes towards risk-taking behaviour

For more information on Young People and Gambling, please refer to this [link](#).

### **Raising Standards for Consumers**

This report is a support tool that the industry can use to learn from and apply its tactics to future operations. The aim of Gambling Commission's enforcement work is to protect consumers and the wider public by raising standards in the gambling industry. As such, operators must:

- › Act in a way that minimises the risks to the licensing objectives and reduces gambling related harm.
- › Put consumers first, treating them fairly and communicating with them in a clear way, that allows them to make a properly informed decision about gambling.
- › Work with the Commission in an open and co-operative way.
- › Avoid acting in a way that does not comply with either the letter or the spirit of the regulatory framework set by the Commission.

For more information about Raising Standards, please refer to this [link](#).

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## **GOVERNMENT DATA TO INFORM EVALUATION METRICS**

### **English Indices of Deprivation 2019**

Since the 1970's, the Ministry of Housing, Communities, and Local Government has calculated local measures of deprivation in England. The Index of Multiple Deprivation (IMD) is the official measure

of relative deprivation in England and is part of multiple outputs that form the Indices of Deprivation (IoD). Relative deprivation encompasses a wide range of living conditions, where an individual can be categorised as deprived if they lack in any kind of resource, not just income.

For more information on the Indices of Deprivation, please refer to this [link](#).

### **Average income by postcode**

Information on population density and average disposable income by postcode in the UK can be found at this [link](#).

### **Average house price by postcode**

As of December 2019, the average house price in the UK was £234,742, and the index stands at 123.12. Property prices have risen by 0.3% compared to the previous month and risen by 2.2% compared to the previous year. The UK House Price Index (HPI) uses house sales data from HM Land Registry, Registers of Scotland, and Land and Property Services Northern Ireland, and is calculated by the Office for National Statistics. The index applies a statistical method, called a hedonic regression model, to the various sources of data on property price and attributes to produce estimates of the change in house prices each period.

The index is published monthly, with Northern Ireland figures updated quarterly.

For more information on the House Price Index, please refer to this [link](#).

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## **REPORTS BY CONSULTANTS AND STAKEHOLDERS**

### **PricewaterhouseCoopers (PwC)**

PwC explored the potential usefulness of industry-held data and behavioural analytics in the remote gambling sector, primarily to indicate markers and patterns of harmful or risky behaviour, and then to recommend practical ways to address it.

#### **Remote Gambling Research: Interim Report Phase I**

Phase I synthesised the latest thinking on harm from gambling through literature reviews and consultations with remote gambling operators. It established a baseline understanding of responsible gambling, a clear view of the current approaches used by operators, some themes of the best practices observed, as well as recommendations for an approach mentioned in phase II.

For detailed information on phase I of this report, please refer to this [link](#).

### **Remote Gambling Research: Interim Report Phase II**

Phase II highlighted six stages of the customer life cycle, on-entry, over time, and in-the-moment, and how harmful gambling behaviour can be mitigated:

- 1 Analysis of demographic markers
- 2 Analysis of behavioural summary markers
- 3 Segmenting customers into gambling profiles
- 4 Customising markers for each gambling profile
- 5 Optimising classification problem gamblers
- 6 Identifying daily triggers

For detailed information on each stage in phase II, please refer to this [link](#).

Please refer to this [report](#) prepared by Focal Research Consultants for a summary of phase II.

### **GambleAware**

GambleAware funds national research to improve knowledge of what works in gambling prevention, education, treatment, and support services. With over 40 research projects, GambleAware's portfolio includes information on the impact of gambling, marketing, and advertising to youth and vulnerable people, a needs assessment for treatment, and a new programme intended to ensure that research, education, and treatment are designed by people with lived experience of gambling harms.

For more information on GambleAware, please refer to this [link](#).

### **The Brief Intervention Guide**

This guide has been developed as a resource to assist professionals who do not specialise in the treatment of gambling problems. It provides brief interventions that address risks and harms related to problematic gambling. It can also act as a resource to help organisational leaders implement the processes needed to support workers who wish to provide brief interventions.

For more information about the Brief Intervention Guide, please refer to this [link](#).

### **Getting Grounded in Problematic Play: Using Digital Grounded Theory to Understand Problem Gambling and Harm Minimisation Opportunities in Remote Gambling**

This study used the grounded theory approach from the social sciences to explore and explain Internet-based problem gambling. It provides insights into support strategies that mitigate risks associated with problem gambling. The researchers examined behavioural player data from 101 problem gamblers and performed multiple in-depth interviews with 11 problem gamblers about their attitudes, experiences, and explanations of their Internet gambling behaviour. The researchers found that wins in Internet gambling affect players behaviour risk, with early wins and wins during loss-chasing leading to specific risk behaviours. Internet problem gamblers were shown to experience harm from their preoccupation with gambling even when not actively gambling. The findings suggest that policy and future research should focus on the risks associated with the continuity of online gambling (e.g., the timing and delivery of breaks in play), and

facilitating the account withdrawal process, to ensure problem gamblers are not nudged away from deciding to stop gambling or withdraw funds.

For more information on this report, please refer to this [link](#).

### **Responsible Gambling: Collaborative Innovation Identifying Good Practice and Inspiring Change**

This report outlines a new vision for Responsible Gambling (RG) within the gambling industry. In addition to defining new frameworks for understanding key priorities, it provides examples, new ideas, and recommendations for how operators of all sizes, across all sectors, might meet these challenges. The framework for RG defined in this report is based on three pillars: Enabling Informed Choice, Improving Self-Awareness, and Creating Supportive Environments. The initial chapters provide an accessible guide to the findings and recommendations, with extended technical appendices that elaborate on methodological detail, and the wide-ranging primary and secondary evidence that informed this report. The project was independently designed and led by the research team at Revealing Reality. The project was originally instigated by the Industry Group for Responsible Gambling (IGRG) in four parts, focusing on product information, in-play messaging, social messaging, and staff training.

For more information on this report, please refer to this [link](#).

### **Responsible Gambling Strategy Board: Evaluation Protocol**

The gambling industry is being encouraged to test and evaluate new approaches to harm minimisation. This protocol has been developed to act as an aid to help the industry evaluate new interventions and demonstrate that harm minimisation is working. It is also anticipated that the protocol will be useful for people working in responsible and safer gambling roles.

For more information on the Evaluation Protocol, please refer to this [link](#).

## **Centre for Addiction and Mental Health**

### **Problem Gambling: A Guide for Helping Professionals**

This guide has been developed for professionals who work in all aspects of the health care and wellness field including the criminal justice system. It is intended to increase one's knowledge and understanding of the impacts of problem gambling for those who gamble excessively and their families. This guide also has resources and tools that a treatment provider would need to access to identify and support people with problem gambling.

For more information on the Guide for Helping Professionals, please refer to this [link](#).

## Senet Group

### **In Control: How to Support Safer Gambling Using a Behaviour Change Approach**

The Senet Group commissioned a research study to identify what operators have done, and can be doing, to promote safer gambling. Focusing on individuals' playing habits, the research sought to explain desired behaviours and motivations associated with control, along with providing tools and strategies that make it easier to maintain control while gambling.

For more information on the Senet Group report, please refer to this [link](#).

## Other

### **Learning and Growing Through Evaluation: State Asthma Programme Evaluation Guide**

Operators sometimes access materials from other areas in which evaluations are regularly conducted to learn more about processes that could be applied when evaluating customer interactions. This report, prepared for health professionals who treat people with asthma, contains some helpful ideas that are potentially transferrable to different sectors.

The Centres for Disease Control and Prevention, along with the State and Territorial Public Health Departments, are using this guide to reduce the burden of asthma in the community. This guide informs readers about evaluation strategies, and preparing individual evaluation plans tailored specifically for controlling and managing individuals who suffer from asthma.

For more information on State Asthma Programme Evaluation Guide, please refer to this [link](#).

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## COURSES, CONSULTANTS, AND OTHER RELEVANT STAKEHOLDERS

### GamCare

#### **Awareness and Training Modules**

GamCare provides interactive training programmes that build on the understanding and skillset of the learner. The modules are designed and delivered by professionals who have clinical experience supporting people with problem gambling behaviour. This training is specifically designed to improve one's understanding of problem gambling behaviour and psychology, increase awareness of the social impact of gambling problems, and effectively provide skills to address the needs of those who require help.

For more information on the Awareness and Training Modules, please refer to this [link](#).

## Igaming Academy

iGaming Academy provides compliance and skills training courses to the global online gaming and gambling industry, for learners from entry to senior level worldwide. The 40+ courses are updated frequently to address any changes within regulation and to reflect new industry standards.

For more information on iGaming Academy training courses, please refer to this [link](#).

## Comply Advantage

Comply Advantage is a technological solutions company that helps organisations in the online gaming and gambling, betting, and casinos sector. They mandate a positive player experience while streamlining KYC (know your customers) and AML (anti-money laundering) checks to monitor any risks. The company also helps organisations comply with global regulations and protects their reputation by, for example, ensuring a risk-based approach that follows the Bank Security Act (BSA) and the Fifth Money Laundering Directive.

For more information on Comply Advantage, please refer to this [link](#).

## SMP Partners

SMP Partners is a wealth management company that provides corporate services internationally, based on a foundation of the best-in-class compliance procedures. They deliver tailored solutions that fit their clients' needs, structuring and optimising the way assets are held.

For more information on SMP Partners, please refer to this [link](#).

## Epic Risk Management

Epic Risk Management provides bespoke educational and motivational speakers to discuss the hidden dangers of problem gambling in front of lawmakers, CEO's, sports professionals, prisoners, and children. They also offer support to senior business leaders if they are suffering from the consequences of problem gambling. Additionally, the company offers help to employers that have a legal obligation to have the right policies in place to support their staff. Internal audits are another service provided to businesses that require analyses of high-risk areas. Lastly, the company can investigate gambling and non-gambling related financial crime, help recover misappropriated funds, and develop a framework to prevent future occurrences.

For more information on Epic Risk Management, please refer to this [link](#).

## Level Ground Therapy

Liz Karter is a licensed psychotherapist, specialising in gambling addiction, working with women who suffer from problem gambling. She offers counselling services to the public and applies best-practice, evidence-based therapeutic approaches in treatment. Working with leading UK gambling addiction treatment agencies, Level Ground Therapy is her private practice that she established in 2010.

For more information on Level Ground Therapy and Liz Karter's services, please refer to this [link](#).

## Breakeven

[Ian Semel](#) has been involved in the gambling industry for over 40 years, with the first 20 years spent as a pathological gambler, and the next 20 years spent as a treatment provider for those affected by problematic gambling. He started a charity called Breakeven in 2001, which is a partner of [GamCare](#) and the [UK National Gambling Treatment Service](#). The charity offers free counselling services to anyone experiencing gambling-related issues, including affected partners, family members, and friends, with no waiting list.

For more information on Breakeven, please refer to this [link](#).

## Senet Group

The Senet Group is an independent body set up to raise standards in the gambling sector, supporting the Gambling Commission's work to ensure services are safer and fairer. The funding partners created eight commitments which limited certain forms of TV and product advertising and marketing. They ensured that responsible gambling messages were included in gaming machines and digital media advertisements, and that:

- 1 Offers that are exclusive to new customers (including free bet and free money sign-up offers) may not be advertised on TV before 9pm, mindful of children and young people watching.
- 2 Gaming machines must not be advertised in betting shop windows.
- 3 20% of betting shop window advertisements must be dedicated to responsible gambling messages.
- 4 20% of the total area of all TV end frames, or an equivalent, must be dedicated to responsible gambling messages.
- 5 10% of the total area of all press adverts must be dedicated to responsible gambling messages.
- 6 All web and social applications must carry prominent responsible gambling messages, including messages on the homepage of major social media sites.
- 7 All players on gaming machines must be given the option to set time and money limits at the start of their gaming session.
- 8 All social media channels must carry regular standalone Senet Group advertisements.

In April 2020, the Senet Group transferred its responsibilities to the Betting and Gaming Council. For more information, please refer to this [link](#).

## Betting and Gambling Council

Formerly known as the Remote Gambling Association (RGA), the Betting and Gaming Council (BGC) is the single industry association for betting and gaming, representing betting shops, online gaming businesses, and casinos. In collaboration with the Senet Group, the BGC developed five Safer Gambling Commitments that can be delivered by working groups and subject matter experts drawn from across the industry:

- 1 Prevent underage gambling and protect young people.
- 2 Increase support for treatment of gambling harm.
- 3 Strengthen and expand codes of practice for advertising and marketing.
- 4 Protect and empower customers.
- 5 Promote a culture of safer gambling.

For more information on the Safer Gambling Commitments, please refer to this [link](#).

For more information on the Betting and Gaming Council, please refer to this [link](#).

## Patterns of Play

### Analysis of Play Among British Online Gamblers on Slots and Other Casino-Style Games

David Forrest and Ian McHale analysed patterns of play on gaming machines. Operators of land-based “venues, in the bookmaker and casino sectors, have provided data for research commissioned by GambleAware. Notable findings included a higher proportion of heavy player losses in slots play than in non-slots play. This may reflect, to some extent, that slots bets are more often at longer odds because of the nature of the games and the ways they are played. In terms of stake size, it was evident that staking at a high level was much more prominent in the non-slot products. This was expected due to the nature of the games, along with a tendency for casino-style games to be played at higher stakes in the offline world as well. Lastly, the paper focused on the frequency of play and found that a significant number of players were categorised as regular players. More than 27,000 slots customers and more than 11,000 non-slots customers were active on at least 22 days, making them daily-or almost daily-players. These are players that operators must be aware of, as their chances of harm from gambling may be high.

For more information on this report and a detailed analysis, please refer to this [link](#).

## Mindway AI

Mindway AI is a combination of research in neuroscience, neuroimaging, and problem gambling, converting research results into responsible gambling solutions. The company analyses data to better understand every customer’s gambling trajectory. No data exchange is needed, as operators host their own data, and each algorithm is tailored specifically to that data, resulting in a customised solution.

For more information on Mindway AI, please refer to this [link](#).

## Samaritans

Samaritans is a unique charity that is dedicated to reducing feelings of isolation and negativity, which can lead to suicide. The calling service is free of charge and available around-the-clock, for anyone who is struggling to cope in a broad range of topics, or needs someone to listen, without feeling judged or pressured. Samaritans is run by trained volunteers who, along with listening, may also provide helpful strategies and ways of coping.

For more information on Samaritans, please refer to this [link](#).

## Anti-Money Laundering (AML) Training

UK Training has developed a full day paid course called Anti-Money Laundering and Preventing Financial Crime, where business leaders can learn the key criminal finance legislations and step-by-step processes of recognising, assessing, and managing AML and financial risks. In this course, an expert presenter demonstrates how to plan and implement a strategy that satisfies the requirements of UK regulators.

For more information on the AML full day course, please refer to this [link](#).

## Harris Hagan

Harris Hagan is a law firm that provides legal services in all sectors of the gambling and leisure industry in the UK and internationally. The company views themselves as a business within the gambling industry that deals with gambling law, compliance, and regulation, rather than an external advisor.

For more information on Harris Hagan, please refer to this [link](#).

## Young Gamers and Gamblers Education Trust (YGAM)

YGAM is a national charity with a social purpose to inform, educate, safeguard, and build digital resilience amongst young and vulnerable populations. This is achieved through evaluated and accredited education programmes for anyone who works with young and vulnerable populations, such as teachers, youth workers, community volunteers, and mental health specialists. It also works with universities and students to raise awareness about problem gambling and gaming across campuses.

For more information on YGAM, please refer to this [link](#).

## Advertising Standards Authority (ASA)

The ASA is the UK's independent advertising regulator. It makes sure that ads across the UK media comply with the [Advertising Codes](#). The ASA responds to concerns and complaints from consumers and businesses, and acts on banning ads that are misleading, harmful, offensive, or irresponsible. [Rulings](#) are published and made available for public access, which inform instances when advertising rules apply and where the line must be drawn in judging whether the ad has broken the rules.

For more information on ASA, please refer to this [link](#).

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## ACADEMIC LITERATURE

### **Cognitive dissonance, personalised feedback, and online gambling behaviour:**

#### **An exploratory study using objective tracking data and subjective self-report**

Auer, M., & Griffiths, M. D. (2017). Cognitive dissonance, personalised feedback, and online gambling behaviour: An exploratory study using objective tracking data and subjective self-report. *International Journal of Mental Health Addiction*, 16, 631–641. doi:10.1007/s11469-017-9808-1

Providing personalised feedback about the amount of money that gamblers have actually spent may — in some cases — result in cognitive dissonance due to the mismatch between what gamblers actually spent and what they thought they had spent. In the present study, the participant sample (N = 11,829) was drawn from a Norwegian population that had played at least one game for money in the past six months on the Norsk Tipping online gambling website. Players were told that they could retrieve personalised information about the amount of money they had lost over the previous 6-month period. Out of the 11,829 players, 4045 players accessed information about their personal gambling expenditure and were asked whether they thought the amount they lost was (i) more than expected, (ii) about as much as expected, or (iii) less than expected. It was hypothesised that players who claimed that the amount of money lost gambling was more than they had expected were more likely to experience a state of cognitive dissonance and would attempt to reduce their gambling expenditure more than other players who claimed that the amount of money lost was as much as they expected. The overall results contradicted the hypothesis because players without any cognitive dissonance decreased their gambling expenditure more than players experiencing cognitive dissonance. However, a more detailed analysis of the data supported the hypothesis because specific playing patterns of six different types of gambler using a machine-learning tree algorithm explained the paradoxical overall result.

### **Comorbidity issues in the pharmacological treatment of pathological gambling: A critical review**

Dell'Osso, B., Allen, A., & Hollander, E. (2005). Comorbidity issues in the pharmacological treatment of pathological gambling: A critical review. *Clinical Practice and Epidemiology in Mental Health*, 1, 21. doi:10.1186/1745-0179-1-21

Pathological Gambling (PG) is an impulse control disorder often comorbid with other psychopathology, particularly bipolar spectrum disorders, attention deficit/hyperactivity disorder, obsessive-compulsive

disorder (OCD) and substance abuse. This paper reviews the published literature on the pharmacological management of PG, highlighting how clinical and subclinical comorbid psychopathology influences the choice of pharmacological treatment. Using Medline, the authors reviewed relevant articles published on this topic from 1995 to 2005, focusing on the best-designed studies for inclusion. Much of the literature on PG-treatment presupposes different theories regarding this disorder. Data suggest the utility of differentiating the pharmacotherapy of pathological gamblers in light of their comorbid profile, specifically assessing for comorbid bipolar, ADHD, OCD, and substance abuse disorders. Decisions about pharmacological treatment of PG should take into account current and previous comorbid disorders which influence treatment selection.

### **Screening for problem gambling within mental health services:**

#### **A comparison of the classification accuracy of brief instruments**

Dowling, N. A., Merkouris, S. S., Manning, V., Volberg, R., Lee, S. J., Rodda, S. N., & Lubman, D. I. (2017). Screening for problem gambling within mental health services: A comparison of the classification accuracy of brief instruments. *Addiction, 113*(6), 1088–1104. doi:10.1111/add.14150

The aim of this study was to investigate how accurately nine brief screening questionnaires identify and classify gambling risk levels among mental health patients. The researchers also explored if the questionnaires' accuracy differs depending on the type of mental health disorder. Participants were 837 patients being treated at one of eight mental health services in Victoria, Australia. They completed the Problem Gambling Severity Index (PGSI) and nine brief screening questionnaires. The five-item Brief Problem Gambling Screen (BPGS) was the only questionnaire that could identify patients at any level of gambling risk (low-risk, moderate-risk, and problem gambling). The NODS-CLiP or the three-item BPGS could be used by mental health services wanting a shorter questionnaire to screen for higher risk (moderate-risk and problem gambling). Services that are only able to accommodate a very brief instrument can employ the Lie/Bet Questionnaire or the two-item BPGS.

### **Using theory to design effective health behaviour interventions**

Fishbein, M., & Yzer, C. (2003). Using theory to design effective health behaviour interventions. *Communication Theory, 13*(2), 164–183. doi:10.1111/j.1468-2885.2003.tb00287.

This article demonstrates the usefulness of two theories for the development of effective health communication campaigns. The integrative model of behavioural prediction focuses on changing beliefs about consequences, normative issues, and efficacy with respect to a particular behaviour. Media priming theory focuses on strengthening the association between a belief and its outcomes, such as attitude and intention toward performing the behaviour. Both the integrative model of behavioural prediction and media priming theory provide guidance with respect to the selection of beliefs to target in an intervention. The article describes the theories, shows how they can be applied to the selection of target beliefs, and, for each theory, defines the criteria for belief selection. The two theories as well as their appropriate analytic strategies are complementary rather than conflicting.

### **Early detection items and responsible gambling features for online gambling**

Haefeli, J., Lischer, S., & Schwarz, J. (2011). Early detection items and responsible gambling features for online gambling. *International Gambling Studies, 11*(3), 273–288. doi:10.1080/14459795.2011.604643

Early detection is an effective building block for the prevention of problem gambling. This study aims to identify communication-based indicators for gambling-related problems in the setting of online gambling. In the framework of a semi-structured interview, customer service employees of three online gambling operators were surveyed, to identify indicators in customer correspondence could be used as a predictor for gambling-related problems. In a confirmatory part of the study, we investigated to what degree these indicators are able to predict problem gambling in a prospective empirical design. An optimally parsimonious log-linear model, was able to correctly predict 76.6% of the cases. Discussed in the light of this evidence, communication-based indicators could constitute an effective component of early detection. Due to the fact that the internet offers optimal conditions for consistent monitoring and objective analysis, the suggested predictive model could be combined with other models, relying on the analysis of gambling behaviour.

### **Risk factors for suicide ideation and attempts among pathological gamblers**

Hodgins, D. C., Mansley, C., & Thygesen, K. (2006). Risk factors for suicide ideation and attempts among pathological gamblers. *The American Journal on Addictions, 15*(4), 303–310. doi:10.1080/10550490600754366

The link between pathological gambling and suicide is poorly understood. The current study has two major goals: to provide descriptive information about suicide ideation and attempts among pathological gamblers trying to quit, and to identify predictors of suicidal ideation and attempts, with a particular emphasis on mood and substance use disorders. A community sample of 101 individuals with gambling problems who had made a recent quit attempt was assessed using structured instruments. Of these, 28.7% reported no history of suicide ideation or attempts, 38.6% reported having only thoughts of suicide, and 32.7% reported a suicide attempt. Ideation predated the onset of gambling problems by an average of greater than ten years. History of ideation was increasingly likely with a greater severity of gambling problem as determined by DSM criteria. Those experiencing ideation were also more likely to over gamble on gambling days and five times more likely to have a history of depression. Substance abuse history was the only factor that distinguished between individuals who had a history of suicide attempts versus ideation only. Having a drug history was related to a more than six times greater likelihood of having made a suicide attempt. Gambling-related suicide attempts were relatively rare — 21.2% of attempters, or 7% of the total sample. These findings are consistent with the common factor model of etiology in which the suicidality of gambling is related to prior mental health disorders. More research on the relationship between alcohol and other drug disorders and their complex relationship to pathological gambling and suicide is crucial.

### **The Lie/Bet Questionnaire for screening pathological gamblers**

Johnson, E. E., Hamer, R., Nora, R. M., Tan, B., Eisenstein, N., & Engelhart, C. (1997). The Lie/Bet Questionnaire for screening pathological gamblers. *Psychological Reports, 80*(1), 83–88. doi:10.2466/pr0.80.1.83–88

A 2-item questionnaire was derived from 10 DSM-IV criteria for pathological gambling. Subjects were 362 men, 191 classified as pathological gamblers and 171 as nonproblem-gambling controls. The two items were significant in sensitivity and negative predictive value and significant in specificity and positive predictive value.

### **Random forests: From early developments to recent advancements**

Khaled, F., Mohamed, M. G., & Eyad, E. (2014). Random forests: From early developments to recent advancements. *Systems Science & Control Engineering*, 2(1), 602–609. doi:10.1080/21642583.2014.956265

Ensemble classification is a data mining approach that utilises a number of classifiers that work together in order to identify the class label for unlabeled instances. Random forest (RF) is an ensemble classification approach that has proved its high accuracy and superiority. With one common goal in mind, RF has recently received considerable attention from the research community to further boost its performance. In this paper, we look at developments of RF from birth to present. The main aim is to describe the research done to date and also identify potential and future developments to RF. Our approach in this review paper is to take a historical view on the development of this notably successful classification technique. We start with developments that were found before Breiman's introduction of the technique in 2001, by which RF has borrowed some of its components. We then delve into dealing with the main technique proposed by Breiman. A number of developments to enhance the original technique are then presented and summarised. Successful applications that utilised RF are discussed, before a discussion of possible directions of research is finally given.

### **Predicting online gambling self-exclusion: An analysis of the performance of supervised machine learning models**

Percy, C., França, M., Dragičević, S., & d'Avila Garcez, A. (2016). Predicting online gambling self-exclusion: An analysis of the performance of supervised machine learning models. *International Gambling Studies*, 16(2), 193–210. doi:10.1080/14459795.2016.1151913

As gambling operators become increasingly sophisticated in their analysis of individual gambling behaviour, this study evaluates the potential for using machine learning techniques to identify individuals who used self-exclusion tools out of a sample of 845 online gamblers, based on analysing trends in their gambling behaviour. Being able to identify other gamblers whose behaviour is similar to those who decided to use self-exclusion tools could, for instance, be used to share responsible gaming messages or other information that aids self-aware gambling and reduces the risk of adverse outcomes. However, operators need to understand how accurate models can be and which techniques work well. The purpose of the article is to identify the most accurate technique out of four highly diverse techniques and to discuss how to deal analytically and practically with a rare event like self-exclusion, which was used by fewer than 1% of gamblers in our data-set. We conclude that balanced training data-sets are necessary for creating effective models and that, on our data-set, the most effective method is the random forest technique which achieves an accuracy improvement of 35 percentage points versus baseline estimates.

### **Assessing the techniques and needs for responsible gambling professional training and education**

Philander, K., Stark, S., Keshabyan, A., & Robinson, J. (2018). *Assessing the techniques and needs for responsible gambling professional training and education*. Retrieved from the International Center for Gambling Regulation, University of Nevada, Las Vegas: [https://www.unlv.edu/sites/default/files/page\\_files/27/ICGR-TrainingNeedsOfTheResponsibleGamblingProfessional.pdf](https://www.unlv.edu/sites/default/files/page_files/27/ICGR-TrainingNeedsOfTheResponsibleGamblingProfessional.pdf)

Responsible gambling programmes continue to grow in size and scope, as does the required depth of knowledge for professionals that are accountable for the design of responsible gambling (RG) policies

and systems. Despite the growing complexity of responsible gambling, and the related connections to other public health programmes, business operations, and regulatory processes, there are no dedicated education programmes focused on providing knowledge workers in RG (RG professionals) with a foundation of knowledge to effectively execute programmes in this increasingly complicated system. This report is a training needs assessment study, intended to provide direction for future responsible gambling professional education programmes. Through an environment scan of training programmes, a literature review, and a survey of experts, we identify several broad areas of study that appear to be important to the work of responsible gambling professionals. We additionally find that our sample of experts have managed to acquire most of the skills that they need, through accessing a variety of informational sources on gambling and problem gambling (PG) information, RG corporate policies, how to educate players, RG guiding principles, how to assist players in need, self-exclusion programmes, organisational benefits of RG, advertising and marketing guidelines, and venue design and environmental features. But we also find that a few areas of study remain an ongoing need, including game design and structural characteristics, gambling evaluation measures, and organisational barriers to implementing RG policies. We conclude that future educational programmes should have a broad scope of content for new knowledge workers in the field, while established workers would benefit from more targeted content related to emerging areas of research and ongoing challenges that leaders may face once established in their roles.

### **Using the Rasch model to evaluate the South Oaks Gambling**

#### **Screen for use with nonpathological gamblers**

Strong, D. R., Breen, R. B., Lesieur, H. R., & Lejuez, C. W. (2003). Using the Rasch model to evaluate the South Oaks Gambling Screen for use with nonpathological gamblers. *Addictive Behaviors, 28*(8), 1465–1472. doi:10.1016/s0306-4603(02)00262-9

Despite its utility for the dichotomous differentiation of pathological and nonpathological gamblers, some have questioned the use of the South Oaks Gambling Screen (SOGS) [Am. J. Psychiatry 144 (1987) 1184.] for discriminating individuals across the entire range of gambling problems. Using methods from item response theory, we derived a six-item version of the SOGS. This shortened version of the SOGS performed uniformly across a sample of pathological gamblers and a sample of students and resulted in five levels of discrimination and the following interpretation: a score of 1 reveals potential for problems; 2 reveals likely problem gambling; 3 or 4 items endorsed represent significant levels of problems noticeable by others; while 5 or 6 represents severe problems with significant financial involvement. We discuss the implications and remaining limitations of using this shortened measure for the continuum-based assessment of gambling problems.

### **The NODS-CLiP: A rapid screen for adult pathological and problem gambling**

Toce-Gerstein, M., Gerstein, D. R., & Volberg, R. A. (2009). The NODS-CLiP: A rapid screen for adult pathological and problem gambling. *Journal of Gambling Studies, 25*(4), 541–555. doi:10.1007/s10899-009-9135-y

To describe and evaluate tests of the performance of the NODS-CLiP, an efficient standardised diagnostic interview instrument for adult pathological and problem gambling. Setting and Samples Identical batteries of diagnostic questions about gambling behaviour, motives, and thoughts were administered to participants in eight general adult population field studies conducted in the United States between 1999 and 2003, including six state-level random-digit-dial (RDD) telephone surveys, one national RDD survey, and one

in-person systematic random sample survey of commercial gambling patrons in eight states. Total survey  $N = 17,180$ . Response rates ranged from 24 to 71%. Data from all experienced gamblers ( $N = 8,867$ ) were re-analysed to compare diagnostic status derived from the 17-item NORC Diagnostic Screen for Gambling Disorders (NODS), a validated DSM-IV-based instrument, with results from all 2- to 4-item subsets of NODS items. Three NODS questions pertaining to loss of Control, Lying, and Preoccupation (the “CLiP”), requiring one minute to administer, identified virtually all pathological gamblers and most problem gamblers diagnosed by the complete NODS. The CLiP has excellent sensitivity and specificity for NODS constructs. A two-stage NODS–CLiP procedure appears quite promising as an efficient epidemiological instrument for general population research and clinical triage for gambling disorders.

### **Developing a short form of the PGSI**

Volberg, R. A., & Williams, R. J. (2012). *Developing a short form of the PGSI*. Retrieved from the UK Gambling Commission: <https://www.gamblingcommission.gov.uk/PDF/survey-data/Developing-a-Short-Form-of-the-PGSI.pdf>

The aim of the project was to provide the Gambling Commission and its stakeholders advice on the feasibility and suitability of a new brief three-item PGSI Short-Form derived from the longer Problem Gambling Severity Index (PGSI). It was intended for use in tracking the prevalence of problem gambling in the general population. The report began with a summary of the latest developments in the area of problem gambling screening. This was followed by a brief discussion of the problem gambling construct and then a longer consideration of how the performance of different assessment instruments were affected by survey methodology. The next three sections evaluated the performance of the new PGSI Short-Form in the (a) 2009 and 2010 British omnibus surveys, (b) the 2007 and 2010 British Gambling Prevalence Surveys, and (c) large sample of English-speaking clinically assessed gamblers. The final section of the report provided a summary of findings and recommendations for the future.

### **Prevention of problem gambling: A comprehensive review of the evidence and identified best practices**

Williams, R. J., West, B. L., & Simpson, R. I. (2012). *Prevention of problem gambling: A comprehensive review of the evidence and identified best practices*. Retrieved from Gambling Research Exchange Ontario, Evidence Centre: [https://www.greo.ca/Modules/EvidenceCentre/files/Williams%20et%20al\(2012\)Prevention\\_of\\_problem\\_gambling\\_A\\_comprehensive\\_review.pdf](https://www.greo.ca/Modules/EvidenceCentre/files/Williams%20et%20al(2012)Prevention_of_problem_gambling_A_comprehensive_review.pdf)

The purpose of this research was to change that most of the initiatives to prevent problem gambling have been a haphazard process. More specifically, proposing an etiological framework for understanding how problem gambling develops based on the available evidence and drawing from established models of addictive behaviour. Comprehensively evaluating the effectiveness of the various initiatives that have been used around the world to prevent problem gambling based on their demonstrated efficacy and/or their similarity to initiatives that are empirically effective in preventing other addictive behaviour. Based on this critical review of the research, identifying current ‘best practices’ for the prevention of problem gambling (including early intervention for problem gamblers).

**Measuring responsible gambling amongst players:****Development of the Positive Play Scale**

Wood, R. T. A., Wohl, M. J. A., Tabri, N., & Philander, K. (2017). Measuring responsible gambling amongst players: Development of the Positive Play Scale. *Frontiers in Psychology, 8*, 227. doi:10.3389/fpsyg.2017.00227

The modern gambling industry has, by-in-large, assumed a duty of care to minimise the risks associated with gambling, which has manifested in responsible gambling (RG) programming (e.g., educating players about the odds of success). The current study fills a void in gambling operators, regulators, and researchers' ability to measure RG beliefs and behaviour in their player-base, with the development and validation of the Positive Play Scale (PPS). In Study 1, we reviewed the literature and consulted 30 players as well as 10 RG experts to help generate a definition of RG beliefs and behaviour that helped guide item generation. In Study 2, regular players ( $N = 1,551$ ) of a Canadian provincial gambling operator completed a positive play survey. Four components from a principal components analysis (PCA) were extracted: Honesty and Control, Pre-commitment, Personal Responsibility, and Gambling Literacy. The PPS subscales were either not associated with gambling frequency or had small-to-moderate negative relationships with frequency of play for games most often associated with disordered gambling (e.g., electronic games). In Study 3 ( $N = 413$ ), the factor structure of the PPS was confirmed and refined in a new sample of players. Moreover, a 1-month follow-up session demonstrated that the PPS has high test-retest reliability. The PPS is the first validated scale that reliably assesses the extent to which a consumer base has positive beliefs about gambling and gambles in a positive manner. The PPS can be used by the gambling industry to objectively assess the efficacy of their RG strategy, pinpoint specific areas for future focus, as well as examine the utility of new RG initiatives that aim to promote healthy patterns of gambling consumption. Furthermore, by examining the PPS scores for different player segments (e.g., sex, age, games played) it becomes possible to tailor RG strategy to the needs of specific players. In this way, RG strategy can be optimised by focusing resources where they will be most effective.

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# Appendix B: Operator Feedback Survey

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## ABOUT THE SURVEY

Informally, GREO received a few emails from operators during the initial data submission period who seemed pleased to have a new source of information with the repository, but we wanted to hear from more of them. To get a better sense of whether they thought it might be a useful project to continue, GREO conducted a brief online survey. The Gambling Commission could use this information to make a decision about the viability of an ongoing Customer Interaction Repository.

The survey opened on March 4, 2020 and closed 13 days later on March 17, 2020. The 26 operators who submitted materials to the trial repository were invited to participate. A reminder email to encourage greater participation was sent ten days after the survey opened. Of the 26 operators invited, 9 operators took part (34.6%). Only seven completed the entire survey and two completed it partially. Therefore, survey results should be interpreted with caution due to the low response rate.

## Results

- › Although operators were given their login credentials for the repository shortly after submitting their materials, and a reminder was sent when GREO uploaded the resources document, only four operators had logged in prior to completing the survey. An additional operator was 'not sure'.
- › Operators were asked to choose from nine information or resource categories that could inform safer gambling initiatives, in relation to customer interaction policies and practices. The categories most often selected by operators were: strategies for identifying customers; strategies for evaluating interactions with customers; best practice guidelines related to identification, interaction, and evaluation, or experiencing gambling harms; and, recent research/evidence summaries related to identification, interaction, and evaluation (see Table B-1). Each of the other options had four responses, except for the 'other' category, which was selected by none. This suggests that these resources would be of interest to at least half of the operators who participated in the survey.

- › Operators were asked to rate the usefulness of the repository in meeting their information needs along a scale of 1 to 5, where 1 = *'not at all useful'* and 5 = *'very useful'*. Of the seven operators who responded, three rated it 3 for *'somewhat useful'*, three rated it as 4 for *'quite useful'*, and one rated it as 5 for *'very useful'*. Five operators elaborated on their answer to this question. As shown in Table B-2, a rating of '5' was given for the summaries (which could mean the Resources document). Other responses identified challenges to gaining insights, inconsistent quality of inputs, and not having had a chance to explore the information fully yet. When asked whether they had accessed information in the "Resources" document, five participants had done so.

**TABLE B-1: Information/resources that would help to inform operators' safer gambling initiatives by number of times selected**

Information or resource types	# of operators selecting
Strategies for identifying customers at risk of, or experiencing, gambling harms	6
Strategies for evaluating customer interactions	6
Best practice guidelines related to identification, interaction, and evaluation	6
Recent research/evidence summaries related to identification, interaction, and evaluation	6
Established evaluation frameworks or tools for evaluating interactions	6
Strategies for customer interactions	4
In-depth case studies of specific strategies found to be successful for reducing harms	4
Published evaluations related to customer interactions	4

- › Operators who had accessed the "Resources" document were asked to rate the usefulness of the resources by resource type (on a scale of 1 to 5, where 1 = *'not at all useful'* and 5 = *'very useful'*). Only four operators completed this section, so there is limited utility in discussing the results at length. Most received a rating of at least 3 for *'somewhat useful'*, and there was little variation in scores among resource types.

- › Operators were asked to think back to when they had received the email invitation to submit materials to the repository and consider whether the message was clear in describing the kinds of information requested. Responses ranged from 1 to 5, where 1 = 'not at all clear' and 5 = 'very clear'. Of the seven who responded, two rated it as 2 for 'somewhat unclear', one rated it as 3 for 'somewhat clear' and four rated it as either 4 for 'clear' or 5 for 'very clear'. Although four rated the clarity of the message highly, the fact that three did not suggests that more attention could be given to messaging.

**TABLE B-2: Operators' explanations for rating of usefulness of the repository in meeting information needs by level of usefulness**

Operators' explanations of repository usefulness rating	Usefulness rating*
<i>Summaries</i>	5
<i>A good idea to have the repository, however even with the submissions added, there was a lot of work required to get meaningful insight from all of the operators involved.</i>	4
<i>It is really important to get as many perspectives as possible on what might or might not work. As we strive to improve understanding of identification, interaction and evaluation of our approach to reducing gambling related harm it is important knowledge is shared and new ideas tested in a safe space.</i>	4
<i>Basically, the quality of the inputs. From the contributions it is clear to see that some Operators paid lip service to the request and were seeking only to review others. This highlights a frustrating lack of maturity from some Operators — with motivations being selfish rather than seeking to better balance the social contract we need to uphold with all our stakeholders.</i>	3
<i>I haven't had the opportunity to fully explore what the repository has available as yet.</i>	3

\* Usefulness of repository in meeting information needs along a scale of 1 to 5 (where 1 = 'not at all useful' and 5 = 'very useful').

- › Operators were presented with a list of five potential changes to enhance the function of the repository if it were to continue and asked to rate them along a scale of 1 to 5, where 1 = 'not at all important' and 5 = 'very important'. The mean score and standard deviations are presented in Table B-3 below. Again, caution in interpreting findings is essential due to the low number of responses.

The table suggests that the most important enhancements would allow operators to quickly access relevant information through direct links or keywords, and that information from longer submissions could be summarised. Being able to interact through a discussion board or have visual representations of information were not as important to these operators.

**TABLE B-2: Operators' preferred enhancements if the repository were to continue**

(Mean/Std.Dev; N = 6)

Repository enhancements*	Mean	Std Dev.
Direct links within each submission to resources being used by operators (e.g., websites, reports)	4.17	0.98
Ability to search by keywords	4.00	0.89
Longer submissions reformatted to include a "what you need to know" section	4.00	1.10
Ability to request clarification or ask follow-up questions about submissions via a discussion board	3.67	1.03
Main overall trends and findings of submissions represented visually in videos and infographics	3.67	1.37

\* Rated along a scale of 1 – 5, where 1 = 'not at all important' and 5 = 'very important'.

- › After considering the potential enhancements, operators were asked to comment on whether improvements could be made to the process of submitting information to the repository. Three operators felt that the submissions process was fine as it was, and four gave the following suggestions:

If the above potential changes were properly implemented, that would be a great improvement on the work already carried out.

More standardisation perhaps so all operators follow a certain manner of information sharing.

Clearer understanding of what was required. From looking at the repository briefly there are some that are detailed and show clear information and some that are a one-page Word document. The request for information and what information was not as clear as I would hope.

I felt the initial request for information was a little too open. Whilst this probably allowed for a wider range of submissions you could perhaps ask for more specific submissions (e.g., reporting from trialed and evaluated interaction strategies) whilst allowing an any other section at the end

They appear to be commenting on how the repository itself could be improved rather than focussing on the submission process. Nevertheless, the last three comments suggest that clearer expectations of what should be submitted to the repository would be useful and would create a stronger sense of equity among operators.

- › The final question asked whether operators had any other suggestions to help improve the value of the repository to their work. Three provided feedback:

A fantastic idea in principal, it's always great to glean insight from other operators but it could do with some useful tools to make summarising easier.

I think the repository can give the industry the tools to improve and find clear best practices.

As previously, it was the varying effort and quality of the submissions that struck me — but that speaks more to the types of Operators in this marketplace. My view is that 'all ships rise on the tide' — but it seems that many Operators are simply paying lip-service to their RG programmes. And this risks all our reputations with key stakeholders and our members.

The first two responses show an enthusiasm for continuing the work; however, as noted by the third operator, greater consistency in the effort and quality of submissions is desirable.

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