Date: 6/30/15

Jest8 Limited (trading as Riyo) c/o Davis & Gilbert LLP 1740 Broadway New York, NY 10019

Donald S. Clark, Secretary Federal Trade Commission 600 Pennsylvania Avenue, N.W. Washington, D.C. 20580

Re: <u>Jest8 Limited Trading as Riyo's Application for Approval of a Verifiable</u>

<u>Consent Method</u>

Dear Mr. Clark:

Pursuant to Section 312.12(a) of the Children's Online Privacy Protection Rule (the "Rule"), Jest8 Limited trading as Riyo ("Riyo") formally requests approval of a verified parental consent ("VPC") mechanism not currently enumerated in the Rule.

Riyo proposes a method of verifiable parental consent based upon validating a parent's face against an online presentation of verified photo identification, referred to herein as "Face Match to Verified Photo Identification" ("FMVPI"). The proposed FMVPI method provides businesses with more flexibility and effectively ensures that it is a parent providing consent by combining photo identification verification with facial recognition technology via web and mobile devices. It differs substantially from existing methods enumerated in Section 312.5(b) because it uses computer vision technology, algorithms, image forensics and multifactor authentication to validate a parent's identity and provide assurance that the parents' identity credentials are rightfully being used for the provision of VPC.

This proposed FMVPI method is based on a fraud prevention tool currently in use in sensitive and regulated markets globally. The proposed method has also been used to increase the level of trust between consumers in online market places that are used to trade services and complete cash based transactions. FMVPI has proven to be effective in confirming a user's identity.

The proposed FMVPI method protects consumers and will empower parents to make decisions about their child's digital activities by affording them enhanced obscurity and privacy of their personal information when compared to existing methods. As a result, we believe the proposed method will offer operators of child-directed websites and apps an improved parental consent verification option. Our aim is to protect the interests of children by making the parental consent verification procedure a user-friendly and effective process, ensuring that children are treated fairly and enjoy regulatory compliant access to the technologies, products and services that their parent concludes are appropriate.

To bring context to the functionality and efficacy of FMVPI, Riyo provides examples of case studies, market adoption, industry awards and a product demo URL. These reference an implementation of the proposed method by Jumio Inc. ("Jumio") and marketed under the name Netverify because Riyo holds an exclusive license to the underlying Jumio technology for the purpose of COPPA compliance. It is hoped that this information facilitates assessment of the method against the Rule and provides the public with an overview of how they would engage with FMVPI.

## **CONTENTS OF THIS SUBMISSION**

The submission provides a description of the technology and its proposed application to COPPA VPC as FMVPI, including an explanation of implementation and application to the Rule, in addition to an analysis of the method's efficacy. This is presented in three sections:

- A description of FMVPI, the proposed VPC method and why, both with respect
  to the process for obtaining consent for an initial operator and any subsequent
  operators, FMVPI constitutes a new methodology not covered by those
  enumerated in §312.5(b)(2) of the Rule.
- An statement outlining how FMVPI meets the requirements for parental consent set forth in §312.5(b)(1); specifically, that it is reasonably calculated, in light of available technology, to ensure that the person providing consent is the child's parent.
- 3. An explanation as to why the proposed method poses a lower risk to consumers' personal information than existing, enumerated methods.

## **SECTION 1: A DESCRIPTION OF FMVPI**

The FMVPI method uses visual scanning technology to confirm the integrity of photo identification and validate the appearance of the applicant as a match to the document. This method does not rely upon or reference any databases or outside sources containing personal information (*i.e.*, the technology does not cross-reference consumer identity credential databases). The verification of identity takes place through a two-part process. A video detailing this process, as implemented by Jumio and commercially known as Netverify, is available at <a href="https://vimeo.com/118353806">https://vimeo.com/118353806</a>.

## Part One - Confirming the Integrity of the Photo Identification

FMVPI turns a person's smart-phone or computer into an identification-scanning terminal. To initiate the process, the user captures an image of their photo identification (e.g., drivers license) with the phone's camera or a webcam. For verifications completed on native mobile apps, the software automatically detects the document edges and captures the image of the document. The app then rotates and accurately crops the image of the document to the frame, regardless of the angle at which the user is holding the identification or the mobile phone. For verifications via a web browser, the user clicks to capture the document in the frame.

A series of processes that combine computer vision technology, algorithms and image forensics verify the document for authenticity and legitimacy. This is accomplished through a series of checks on the image of the identification: the product analyzes fonts, holograms, microprint, and other details coded in the document to authenticate the identification.

#### Part Two - Face Match

The user is directed to use the device camera to take a photo of his or her own face (often referred to as a "selfie"). This image is compared to the face displayed on the photo identification used in Part One, validating that the appearance of the user matches the document. To provide further assurance that a live person is present when submitting a photo, FMVPI uses so-called "Liveness Detection" which detects slight facial movements (blinking or moving the mouth into a smile will suffice). This adds a further authentication

layer and mitigates the risk of an attempt to pass the Face Match by taking a photo of a static image.

## Result - Confirmation of Identity and Privacy Preserved

The processes involved in Part One and Part Two described above are typically completed within 60 seconds, meaning that FMVPI offers a fast and easy way for a parent to complete the VPC process. On completion, the parent is provided with confirmation that the identification and image of their face have been successfully captured for analysis.

Results relating to the analysis of the identification and the image of the parent's face are processed in less than two hundred and seventy (270) seconds 95% of the time. They are processed by the system in the background so a parent is not required to wait for confirmation. In the event that the identification is satisfactorily verified and the parent is verified as the rightful holder of said identification, the consent process is completed.

In the event that either the identification or image of the face presented fail the process, the parent is notified and required to initiate the FMVPI again. Although it is possible to submit for analysis invalid but legible identification and/or an image of a face that does not correspond to the identification provided, these would not pass analysis and the parental consent attempt would be marked as failed.

Individual user privacy is maintained throughout the FMVPI process because no reference to government or other databases is necessary to achieve a very high degree of certainty as to validity of the identification. FMVPI is a one-to-one validation process controlled by the user.

To provide further assurance from a privacy and security perspective, all data is transmitted using secure transport with strong cipher suites and stored encrypted using AES256. Data from the identification and images captured is retained for three hundred (300) seconds when provided for VPC; only the resulting decision is retained thereafter.

None of the methods enumerated in §312.5(b)(2) of the Rule have the attributes or processes of FMVPI. Specifically the proposed new method, FMVPI:

- Is a multi-factor method of identity verification
- Requires the presence of verified photo identification
- Confirms the rightful holder of the identification to be present
- Uses computer vision technology, algorithms and image forensics
- Does not check government-issued identification against databases of such information
- Functions outside the U.S. because it does not reference personal information databases

FMVPI makes use of new technology to create a new verifiable consent mechanism. FMVPI allows for that photo identification and its holder to be verified anywhere and at any time, through a smart-phone or computer and advanced photo imaging technology.

## SECTION 2: FMVPI AS A VERIFIED PARENTAL CONSENT MECHANISM

## A. Implementation of FMVPI for VPC

For use as a COPPA VPC method, the following procedure would take place:

- The process is initiated in a manner applicable to the chosen implementation; three implementation options are described in the following "Process Initiation" section:
  - i. Collection of a parent's online contact information from a child.
  - ii. Integration within a common consent mechanism (CCM).
  - iii. Direct initiation with an operator structured to have linked child accounts.
- The parent then completes the FMVPI process outlined in Section 1 of this document.
- Completion of FMVPI and successful verification of both identification and facial photo would trigger a confirmation to the operator that verified parental consent was obtained.
- Failure to successfully complete FMVPI would re-initiate the process and the operator would not be provided with confirmation that verified parental consent was obtained.

## **B.** Process Initiation

Implementation options i – iii describe three ways in which a VPC process with FMVPI could be initiated; all three have already been implemented by businesses providing child privacy services. It is already accepted that if a sufficiently robust identity verification method (in this case FMVPI) is integrated within them, the overall process ensures that it is reasonably calculated, in light of available technology, that the person providing consent is the child's parent.

## i. Collection of a parent's online contact information from a child

The Rule permits an operator to collect a parent's online contact information from the child for the purpose of obtaining parental consent. Online contact information is defined as an email address, an instant messaging user identifier, a voice over Internet protocol (VOIP) identifier, or a video chat user identifier. Via one of these COPPA compliant contact methods, the parent would receive communication from the operator containing all of the attributes required under the Rule as set out in FAQ Section C "Privacy Policies And Direct Notices To Parents." In this communication the parent would be provided with a link to the FMVPI method. A high level example of this implementation would be as follows.

- 1. Child begins account creation with an online service operator.
- 2. Operator's COPPA compliant signup triggers a request for verified parental consent (for example, a neutral age gate detects that the child is under 13).
- 3. Operator collects the parent's online contact information from the child and sends a request for consent to the parent.
- 4. In the communication requesting parental consent, the parent is presented with a hyper-link to commence FMVPI.
- Parent clicks the hyper-link, which loads the FMVPI frame for completion of the process as described in Section 1 above.

6. On completion of FMVPI and satisfactory analysis of the identification and photo provided, confirmation of verified parental consent would be sent to the operator of the online service. If the FMVPI process fails, the parent would be notified with a message displayed in the FMVPI window, or through the contact information previously collected if the parent exited the FMVPI process before notification of the failure.

## ii. Integration within a common consent mechanism (CCM)

Riyo proposes that FMVPI could also be implemented in conjunction with a CCM. "The Commission believes that common consent mechanisms, such as a platform, gaming console, or a COPPA safe harbor program, hold potential for the efficient administration of notice and consent for multiple operators. A well-designed common mechanism could benefit operators (especially smaller ones) and parents alike if it offers a proper means for providing notice and obtaining verifiable parental consent, as well as ongoing controls for parents to manage their children's accounts. The Commission believes that such methods could greatly simplify operators' and parents' abilities to protect children's privacy." Because the Commission has previously stated that companies are free to develop common consent mechanisms without applying for approval, no such approval is sought here. A high level example of this implementation would be as follows.

In this example Step 1 begins with a child attempting to access an online service participating with a CCM provider before the child and their parent are registered users of the CCM (*i.e.*, the child and their parent are new users to both the online service and the CCM). FMVPI would work with the CCM to facilitate the actual verification of parental consent.

- 1. Child requests access to an online service that has integrated with the CCM's authentication API / platform, and submits a parent's online contact information to the service for the purpose of obtaining parental consent.
- 2. A request is sent to the parent for parental consent through the contact information provided by the child.
- 3. Parent is alerted to the request in a manner compatible with the online contact information the child provided to contact the parent.
- 4. The parent registers for a verified account with the CCM provider.
- Parent completes the verification with FMVPI through the same process as
  described in Section 1 above: the parent will be directed to the FMVPI frame to
  complete the identification verification and photo matching procedure.
- 6. The success or failure of the FMVPI process is communicated to the parent as described above as well as the CCM platform.
- Once the parent has successfully completed the FMVPI verification process, the parent can approve and pre-approve each child for online services from within the CCM.
- 8. When a child attempts to use their CCM ID / credential to authenticate access to an online service, a request is sent to the CCM operator to query the status of parental consent for that operator's online service.
- 9. If the parental consent status is confirmed (meaning the parent has successfully completed the FMVPI process), access is granted to the child.
- 10. If not yet confirmed, the parent is alerted to the consent request, and the process begins again as above.

This process mirrors that offered and implemented in the marketplace already, for companies controlling access to services to adults.

## iii. Direct initiation with an operator structured to have linked child accounts

This process would be the same as that presented for a CCM other than it would differ functionally because linked accounts created by a parent for their child would only be used for that specific operator's online service (*i.e.*, it would not be used to verify and authenticate other products or used as a single-sign-on). This also differs functionally to collection of online contact information from a child because the operator owns or has licensed the FMVPI technology to provide the service directly to parents, as opposed to outsourcing the process to a third party compliance service provider.

## C. Application to the Rule

The FMVPI method represents a use of new technology and meets the standard set forth for in the Rule for new verifiable consent mechanisms, *i.e.*, it is "reasonably calculated, in light of available technology, to ensure that the person providing consent is the child's parent." FMVPI offers a higher level of assurance to regulators and operators by tying the holder of the identification to the document. FMVPI also provides parents with peace of mind because the technology prevents a child from misappropriating their identification in order to access online services. This overcomes the problem expressed in COPPA FAQ: H6 whereby no existing method provides a mechanism for detecting the person who is completing the consent process; FMVPI provides that assurance.

FMVPI can be implemented on both the web and mobile devices. The web version of FMVPI is compatible with the most widely used web browsers and almost all webcams. The mobile version is compatible with native applications on Android and iOS devices. This provides operators with the opportunity to implement fast, effective parental consent practices across all of their assets, both on web and mobile, using FMVPI in one of the three "Process Initiation" options. This provides parents with flexibility on where they provide VPC and on what device. The FMVPI method acknowledges that parents are busy and require solutions that empower them to manage their child's privacy through a device form factor that is convenient, matches their life style and is not constrained by ownership of a specific device.

Case studies and awards provided in appendices 2 and 3 demonstrate the efficacy of the technology. Subversion is unlikely because of the precision of the visual imaging and face match technology. A child would be unable to falsify parental consent through access to a parent's identification due to the face match process. As such, assurance is increased and risk of subversion reduced.

## **SECTION 3: PRIVACY RISKS AND BENEFIT TO CONSUMERS**

The Riyo implementation of FMVPI uses strong cipher suites and AES256 encryption. Compared to existing verifiable consent mechanisms, FMVPI affords a parent enhanced obscurity and privacy because there is no transmission of personal information to third party databases of such information. As a one-to-one process of validation controlled by the applicant, FMVPI gives parents enhanced visibility over the data submitted and compared during the process. Where FMVPI is implemented for COPPA compliance, a parent's photo identification and any data relating to it is promptly deleted after completing the verification process. Implemented in this manner, FMVPI does not pose a risk to consumers' personal information.

## Efficacy of the FMVPI in Highly Regulated and Sensitive Markets

Additionally, the FMVPI process is well established and has been extensively implemented, utilized and refined in highly regulated, sensitive open markets, demonstrating that it is sufficiently reliable to verify parents who are authorized to consent to the collection of their child's personal information.

Entities handling sensitive information, including financial institutions such as Bank of America, credit bureaus such as Experian and airlines such as United Airlines, have used FMVPI to verify identity for a number of years with millions of verifications processed. Use cases include bank account opening and administration, credit referencing and online checkin for air travel. Testimonials, case studies and industry awards for Netverify have been provided in the appendix of this document (Appendices 1-3) to substantiate efficacy and market receptiveness of FMVPI.

## CONCLUSION

FMVPI is a new method of obtaining verified parental consent and the first to include strong-multi-factor authentication. We believe the submission, together with appendices provided, demonstrates that FMVPI is a method not previously enumerated under the Rule, and that is "reasonably calculated, in light of available technology, to ensure that the person providing consent is the child's parent" as required by the Rule. FMVPI has been shown to pose a lower risk to consumers' personal information than other existing methods owing to the one-to-one process that does not rely on third party databases to verify information.

Riyo greatly appreciates the Commission's time and consideration with respect to this application and respectfully asks that FMVPI be included as a verifiable consent mechanism in the Rule.

Kind regards,

Tom Strange Director

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Jest8 Limited (trading as Riyo)

# Appendix 1 - Testimonials of the FMVPI method (commercially known as Netverify)

As stated in the body of this submission, the FMVPI has been adopted by businesses in a wide array of industries; use cases vary from regulatory compliance, airline check-in, trust, safety and more. Jumio Inc. commercialized FMVPI under the product name "Netverify". The following testimonials attest to the effectiveness and efficiency of FMVPI on a global scale, as well as consumer receptiveness. Riyo (jest8 Limited) has entered into an exclusive partnership to make FMVPI available to the global COPPA compliance ecosystem.



#### United Airlines

The new passport scanning feature from Jumio saves valuable time and provides customers with more options to control their travel experience.

Scott Wilson

VP of Merchandising and Econimerce / United Airlines



#### EasyJe

Putting your passport information in can take a significant amount of time and it's something that creates frustration. We've developed the new function in partnership with credentials management company Jumio to ensure details can be scanned in easily, safely and securely.

James Millett Head of Digital / EnsyJet



#### Mr. Green

"We chose Jumio above other providers in the market because of its simplicity and the great user experience it offers. There are too many ways to lose customers but Jumio is easy for customers to use and their document validation solution travels better across borders than database-led identity checking."

Luke Gauc

Head of Payments & Fraud / Mr. Green



#### Payward

With Netverity we can identify and authenticate customers in near real time, with a degree of confidence that was proviously unattainable with culline transactions. Given this new level of fraud protection, we are able to safeguard accounts, while increasing ease of use for end user—customers at the same time.

Jesse Powell
Founder and CEO / Payward



#### Rank

\*Using Netverify will streamline our customer experience whilst helping us comply with our Know Your Customer requirements."

Chris McKarkiel

Head of digital commercial risk / Rank



#### cheefel &

We've enabled Jumio's real-time instant verification solution, Netverify to enhance our trust & safety efforts, it was easy to implement and the latest platform offers a fresh clean design and an intuitive user interface.

Steve Kirkhan

Product Manager / Airbnb



#### Travel Googan

Heal-time ID verification is a problem we have been trying to solve for a long time, and Jumio had the solution. What's more, Jumio has been extremely easy and cost-effective to integrate into our service.

aurent Hazour

Founder / Travel Googan



#### Yound

Real-time ID verification is key to enabling businesses to better know their customers, and Jumio's hierority is the most comprehensive solution we've come across. We selected Jumio'to offer a better validation experience to our users that in turn helps us-drive-higher customer conversions.

John Overen

CEO / Youwill



#### betfal

"By edding Jumio's Netverify® into the customer verification process, we are making life quicker and easterfor our outstomers, minimising italiout from lengthy verification processes and remaining costly much hours where we have for research and remaining the process and remaining to the process and the process

hillio Rivers

Head of Registrations, Payments and Fraud / better



#### Safello

"Netwerify is a key enabler for helping more people break into the bitcoin world."

Frank Schull

CEO / Safelio

# Appendix 2 - FMVPI method case studies (commercially known as Netverify)

## Mr Green Case Study



## Foap Case Study

# FOAP INTEGRATES JUMIO TO VERIFY PHOTOGRAPHER IDENTITIES AND BRING TRUST TO THEIR GROWING MARKETPLACE



#### The Client

Smartphone cameras have forever changed the photography medium, giving everybody an equal shot at becoming a professional at least once. With ubiquity comes opportunity and David Los understood this when he founded Foap Market—the photo sharing company whose vision, according to Los, "Is to let people from all over the world earn money from selling their smartphone photos-simply by downloading our free app."

David Los saw that instagram was about to explode and people were taking fantastic photos with their smartphones while at the same time there was a huge demand for authentic, averyday life photos within the online environment. The concept of photos braining for a fee is simple; however it doesn't come without its complexities, including an erray of legal restrictions around ownership and licensing of original photography. Building trust between buyers and selfers by validating the true identity of both parties is critical for the success of the Feap community so Feep decided to introduce. Netverify\* as a means to identify photographers and build legal trust for customers.

Netverify helps create the layer of trust Los was seeking by automatically authenticating and validating an individual's ID through advanced computer vision technology that incorporates use of hologram, microprint, and MRZ code checks.

Together, these technologies help mitigate the risk that a person will successfully complete the registration process using an ID that has been manipulated and is therefore fraudulent. Netverify also delights customers by speeding up the process by parsing out relevant information (e.g. name, address, birthdate) and automatically populating it into the required registration fields.

#### The Result

# SAFELLO AND JUMIO PUT CRYPTOCURRENCY CUSTOMERS ON THE FAST TRACK TO PURCHASING BITCOIN



#### The Client

Safello is a European Bitcoin retailer, aiming to make Bitcoin trading simple and secure. Based in Stockholm, Sweden, Safello complies with anti-money laundering laws to ensure reliability and sustainability as a quality service provider beyond the infancy years of cryptocurrency.

# The Challenge

Founded in the summer of 2013, forward-thinking entrepreneurs Frank Schwi, Emil Oldenburg, and Joakim Johansson built and launched Safello — a platform that puts cryptocurrency enthusiasts onto the fast lane of buying Bitcoln. The appeal and strategy behind buying cryptocurrency using the Safello platform is the ability to purchase units quickly. Waiting out the international bank transfer process (which typically takes from two to five days) creates a roadblock. In addition to speading up the Bitcoin purchases, Safello focuses on clearly differentiating itself as a secure, transparently operated platform that has zero resemblance to other Bitcoin providers that have come into question through the use of unorthodox practices (e.g. Slik Road).

#### The Solution

As a financial institution, Safello is obliged to adhere to Swedish Anti Money Laundering Forum (AML) while maintaining a clear user-friendly interface that makes the customer experience as simple and efficient as possible. To safeguard compliance, Safello integrated Jumio's Netverify\* into their website.

## The Result

Netverify's' computer vision technology provides Safello customers with the freedom to use their smartphone camera to quickly scan in and validate their ID and other relevant documents such as a proof of address. It also speeds up the registration track by extracting and auto-populating information fields with the basics such as name, address, etc. The combination of Safello's platform—which compresses the international banking transfer process to under 24 hours—coupled with Notverify's—which instantly validates documents—helps break down the barriers to entry into the Bitcoin market. It also helps improve customer conversion rates by eliminating the hassle of typing information into ma registration form fields.

# WORLDREMIT IMPROVES THE CUSTOMER IDENTITY VERIFICATION PROCESS USING JUMIO'S NETVERIFY



#### The Client

WorldRemit is an award-winning online money transfer business, enabling customers to send remittances to friends and family in more than 100 countries. Supporting innovative local payment methods in addition to more traditional payment options such as credit cards and debit cards, WorldRemit make it easy to complete money transfers as quickly and safely as possible. Having recently obtained investment from Accel, WorldRemit is planning upcoming expansion into regions such as Singapore, Malaysia and the U.S.

#### The Challenge

The requirement was to comply with anti-money-laundering regulations and maintain a strong 'Know-Your-Customar' procedure whilst also speeding up ID checks. Handling emailed photocopies of ID documents was taking the team at WorldRemit a long time, so they wanted a way to make their processes more officient. There was also a need to make the process of verifying identity simpler for customers considered as 'underbanked', who may fall database-led ID checks.

#### The Solution

Jumio worked with WorldRemit to integrate Netverify, real-time ID verification technology which eliminates the friction and hassle of manually uploading identity documents. Jumio's computer vision technology enables customers to use the camera on their device to scan in their ID and other relevant documents such as a proof of address at the same time.

## The Result

## Appendix 3 - Testimonials of the FMVPI method (commercially known as Netverify)

Multiple awards have been won in recognition of the effective and innovative solution that FMVPI represents for the purpose of completing verified transactions. Now Riyo (jest8 Limited) in partnership with Jumio intends to bring this innovation to the COPPA compliance ecosystem for the completion of Verified Parental Consent in accordance with the Rule.



#### Finovate Europe 2015

Jumio has been awarded Best In Show by the audience at Finovate London 2015–a two-day showcase of the latest and greatest financial and banking 4echnology innovations from leading established companies and hot young startups. The fast fire demo-orientated program saw each presenting company demo their latest technology in just 7 minutes to an audience of over 1,100 financial services professionals litching to witness the latest fin-tech breakthroughs. Over the two day event the audience members were asked to vote for their top three presentations against two criteria; the best demonstration and the potential impact that innovation will bring to the industry.



#### CNP Award 2014

Jumio has been recognized as CNP Customer's Choice Best-Mobile Solution. The award was presented at the 2014 CNP Expo in Orlando where card-not-present companies and solutions are awarded for their notable contributions and innovations in the space. Jumio is joined by other notable honorees, including WorldPay and VeriFone.



#### MRC METAward 2014

The 2014 MRC Emerging Technology Awards (METAwards) honors and celebrates successful innovation and the newest technologies in the electronic commerce-industry. Jurnio won the vote in the established category. The METAwards recognize the solution providers and vendors who are developing and providing the most progressive tools in the electronic commerce-industry.



#### OnMobile - Top 100 Private Companies

September 17, 2013—Jumio has been selected to the OnMobile 100 Top private companies, representing the top companies that are disrupting the establishment and creating viable business models for the mobile marketplace. The AlwaysOn editional team, along with partners in the venture capital and investment community and industry experts across the globe, went out into the entrepreneurial ecosystem to find the top 100 private companies in mobile that are bringing together countless devices and creating an entirely new technology paradigm.—See more at: http://apnetwork.com/Announcing-the-2013-OnMobile-100-Top-Private-Companies



#### eGR B2B Awards - Fraud & compliance solution of the year

June 7, 2013 – Jumio gets the award for best fraud and compliance solution of the year at the annual eGaming Review online gambling industry award ceremony in London. The eGaming Review awards panel is comprised of top executives from the Power50, the widely accepted industry view of the top movers and ehakers from the largest regulated gaming operators.