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AI Ethics in Gambling

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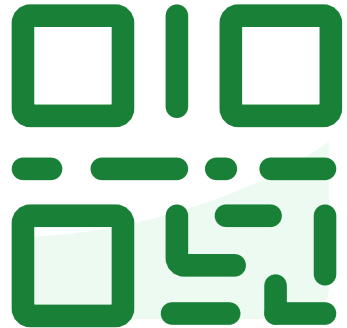
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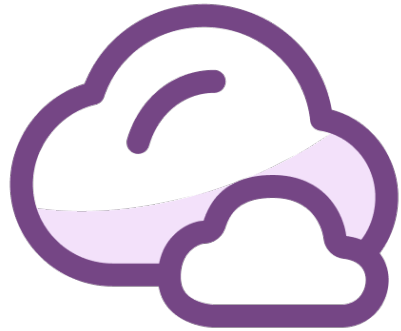
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**5 years, give or take,
maybe slightly longer.**

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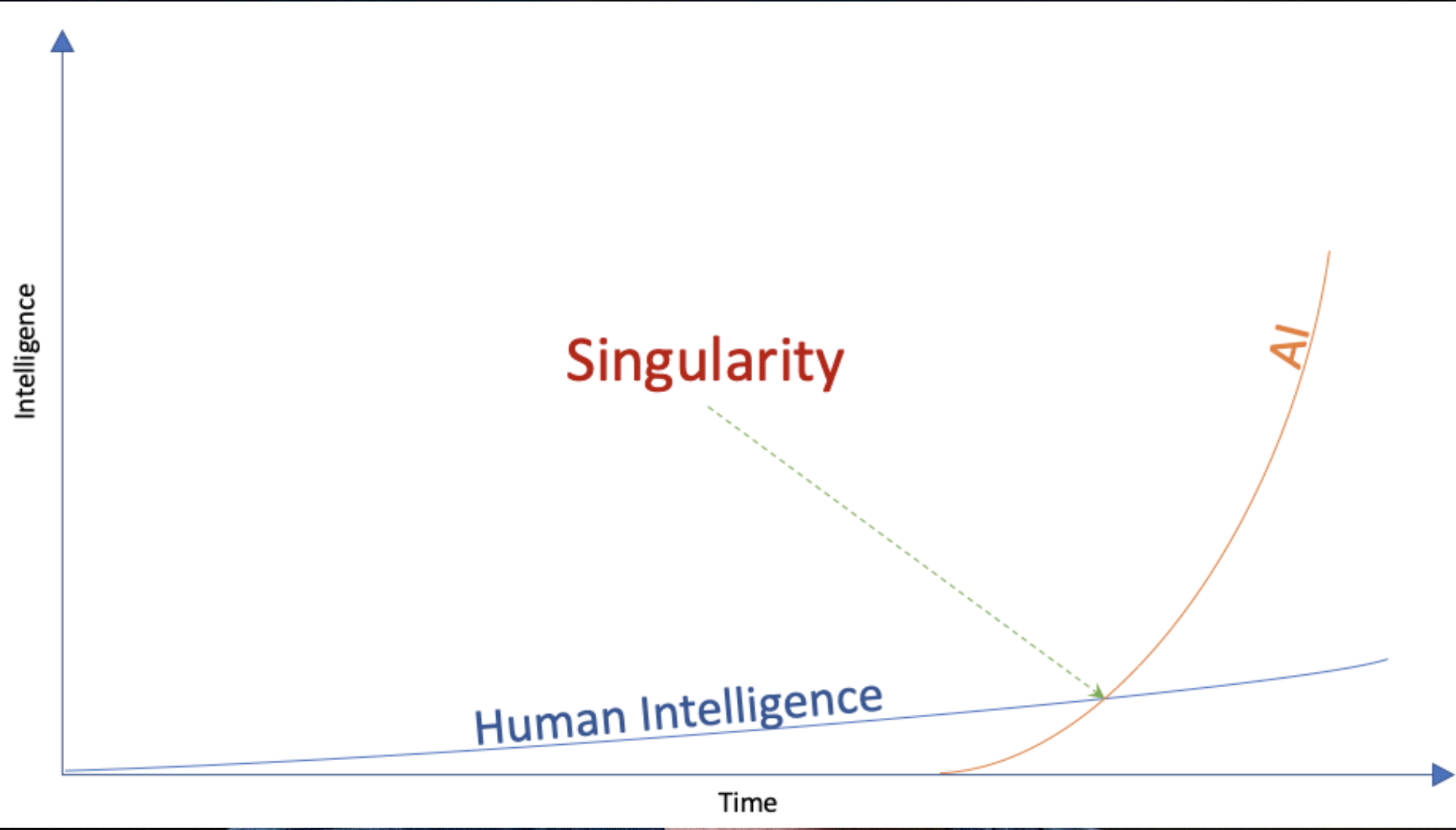
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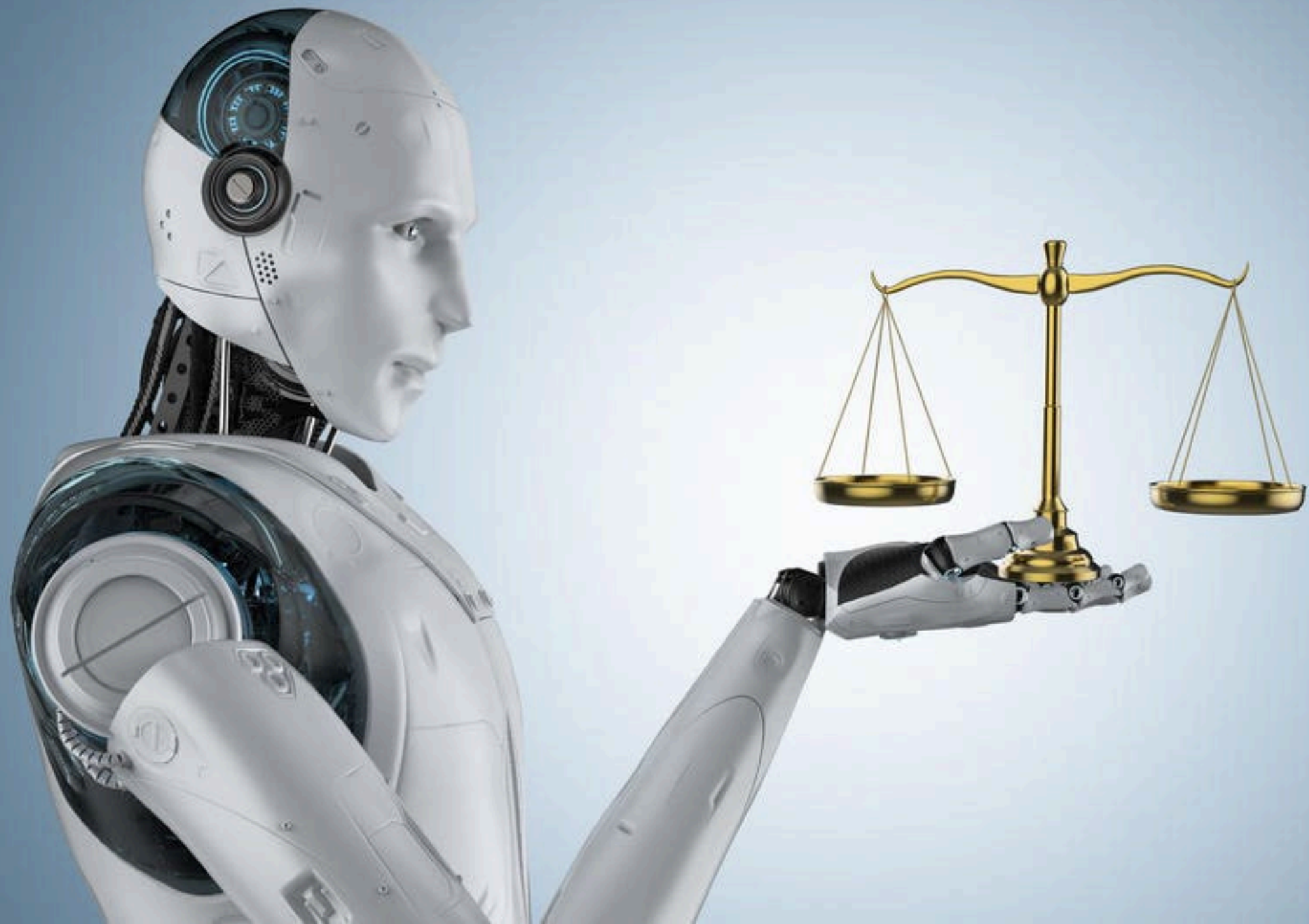


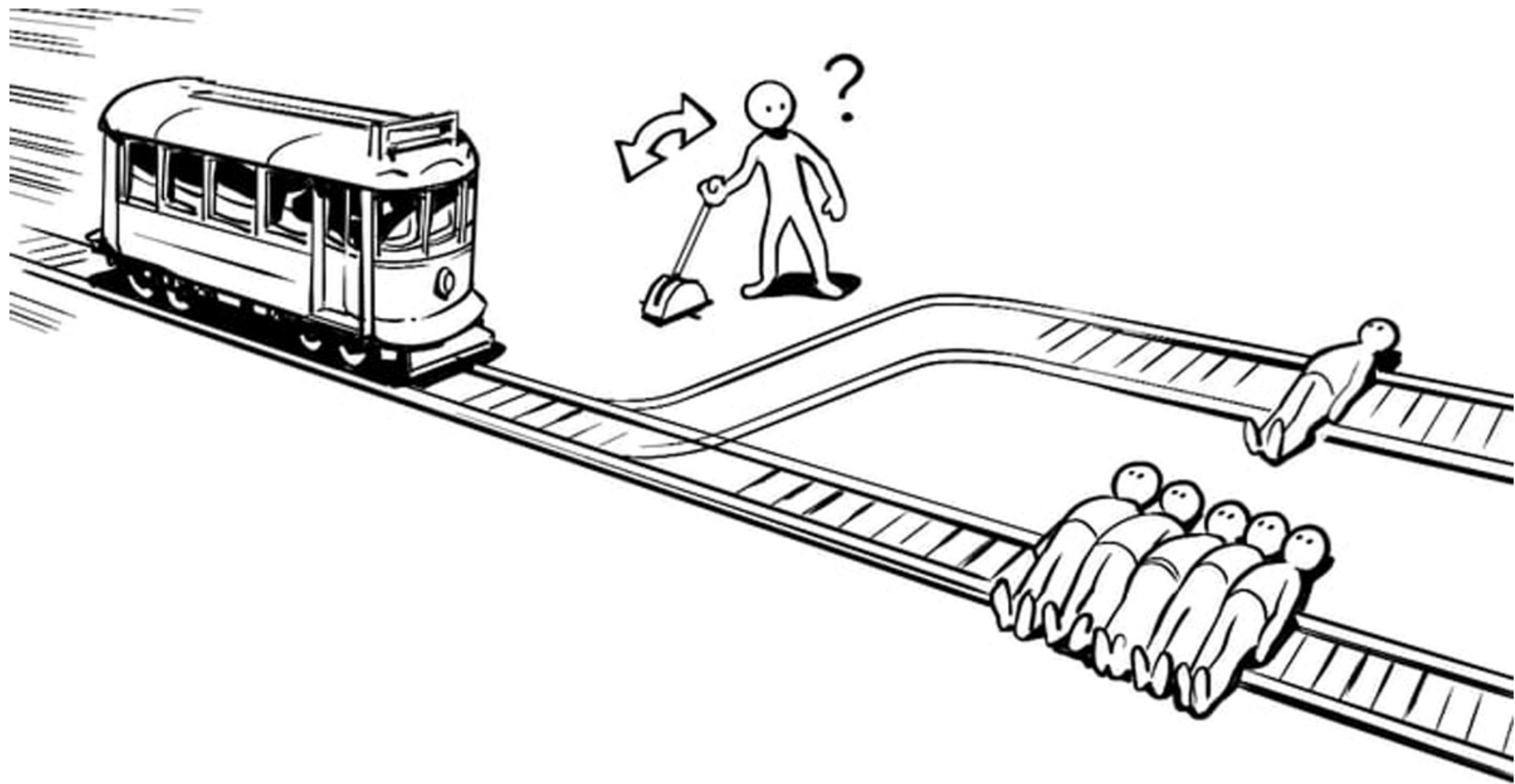
5 years, give or take, maybe slightly longer.

Who said that and in reference to what?

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Ethical Theories

Utilitarianism

- Outcome-based.
- An action is right if it promotes the best consequences.

Deontology

- Duty-based.
- An action is right if it aligns with a moral rule or principle.

Virtue Ethics

- Character-based
- An action is right if it is what a virtuous agent would do in those circumstances.

Ethical Dilemmas of AI in the Gambling Industry

AI

JUSTICE

JUSTICE

Ethics

Interactive Activity



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An online casino has created AI that can tell with 95% certainty who is likely to develop gambling problems and automatically blocks their transactions.

But the AI cannot explain why it makes certain decisions.

Should this AI be used?

① Start presenting to display the poll results on this slide.

EXPLAINABILITY



Utilitarianism

- If the AI produces better outcomes for a majority, use is justified even if not explainable.



Deontology

- Explainability is essential. Keeping customers uninformed is inherently wrong.



Virtue Ethics

- Opaque models used with good intentions may be seen as virtuous.

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A company has created AI that can reduce problem gambling by 50%.

For shareholder benefit, the company keeps all details related to the AI confidential.

Are these proprietary practices ethical?

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TRANSPARENCY



Utilitarianism

- Transparency leads to trust, benefiting industry and consumers. Secrecy resulting in greater harm is unethical.



Deontology

- Companies have a duty to be transparent, regardless of outcomes.



Virtue Ethics

- Transparency could be a virtue itself, reflecting good moral character.

AI Ethical Principles – the response to AI's power and danger



Problems with Principles

Principle – Practice gap.

Lack of consequence. Principles have no “teeth” and are being used in place of regulation.

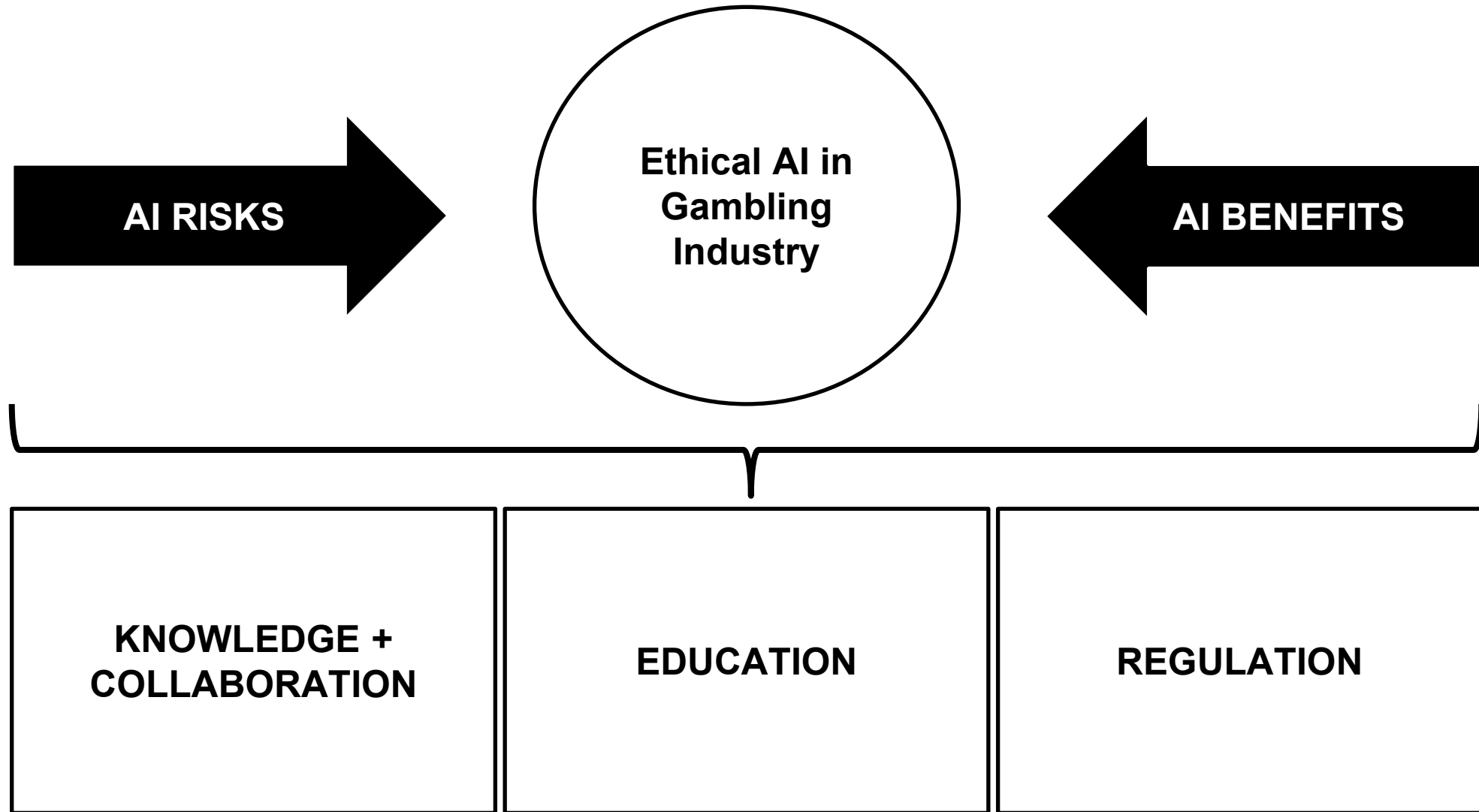
Ethics “washing” or “box-ticking”. Corporations enjoy the appearance of ethics without the substance.

Too broad/Lack context. The ethical implications of deploying AI in healthcare are unlikely to be the same as the ethical implications of deploying AI in an educational setting.

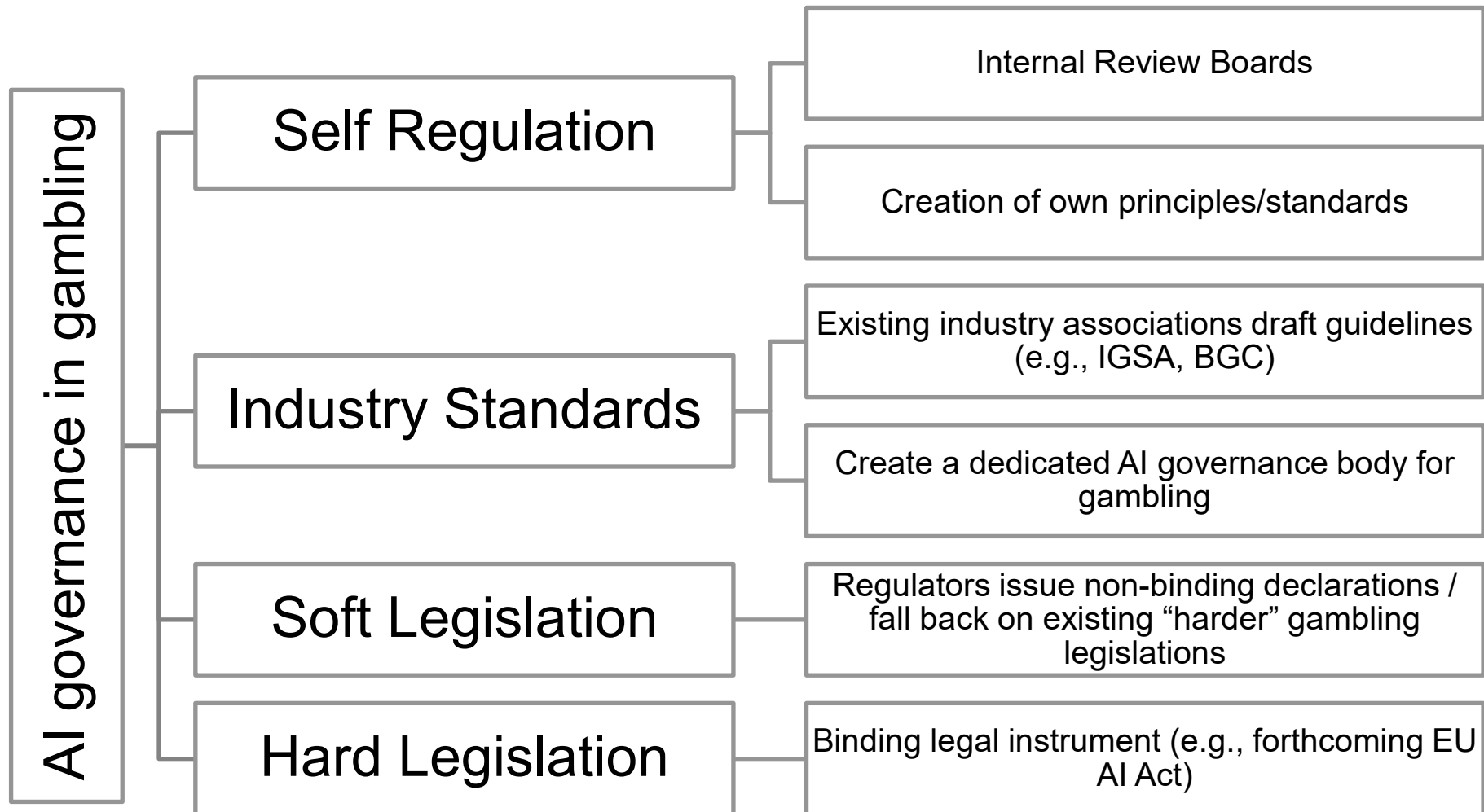


OUR AI ETHICS RESEARCH

Gambling's Ethical AI Paradox



4 potential routes for AI governance



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Thank you!

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Knowledge.

Research.

Innovation.

The Impacts of Widely-Available Sports Betting

Shane W. Kraus, Ph.D.

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12/07/2024

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3 Year Disclosures and Funding Sources

ICRG: role as Co-investigator

Sports Betting Alliance: Co-investigator

Kindbridge Research Institute:
Principal Investigator

UNLV IGI: Collaborator on research projects

The Nevada Problem Gambling Project: Collaborator



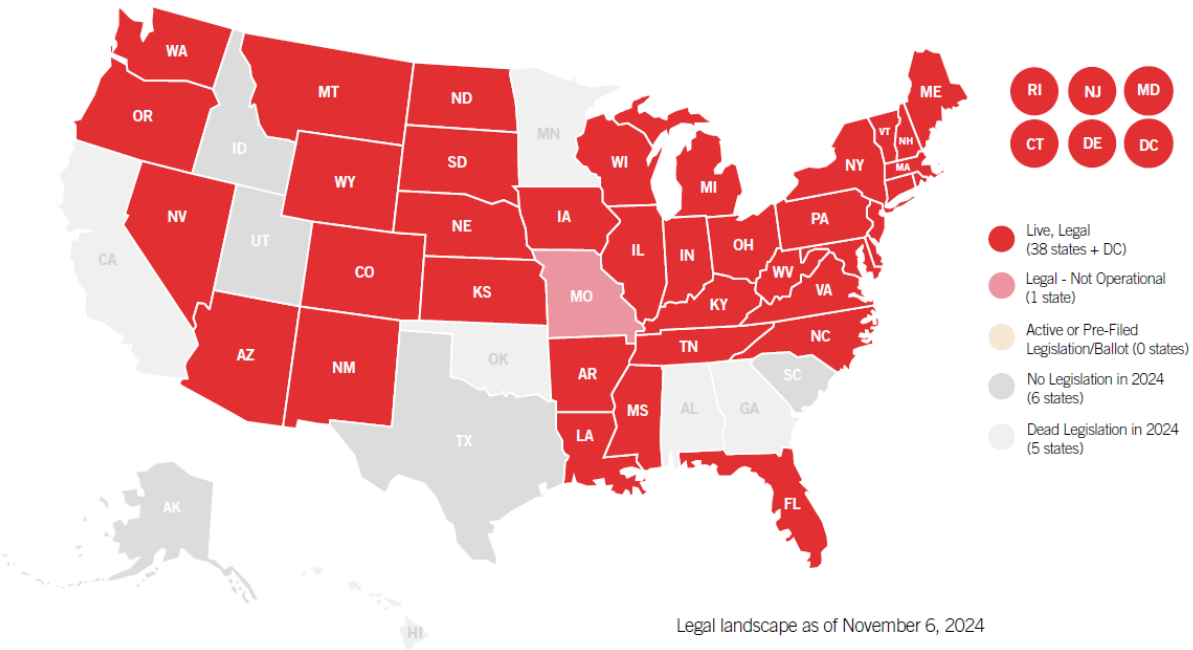
The Nevada Problem Gambling Project

The logo for the University of Nevada, Las Vegas (UNLV), featuring the letters "UNLV" in a white, serif font on a red rectangular background.

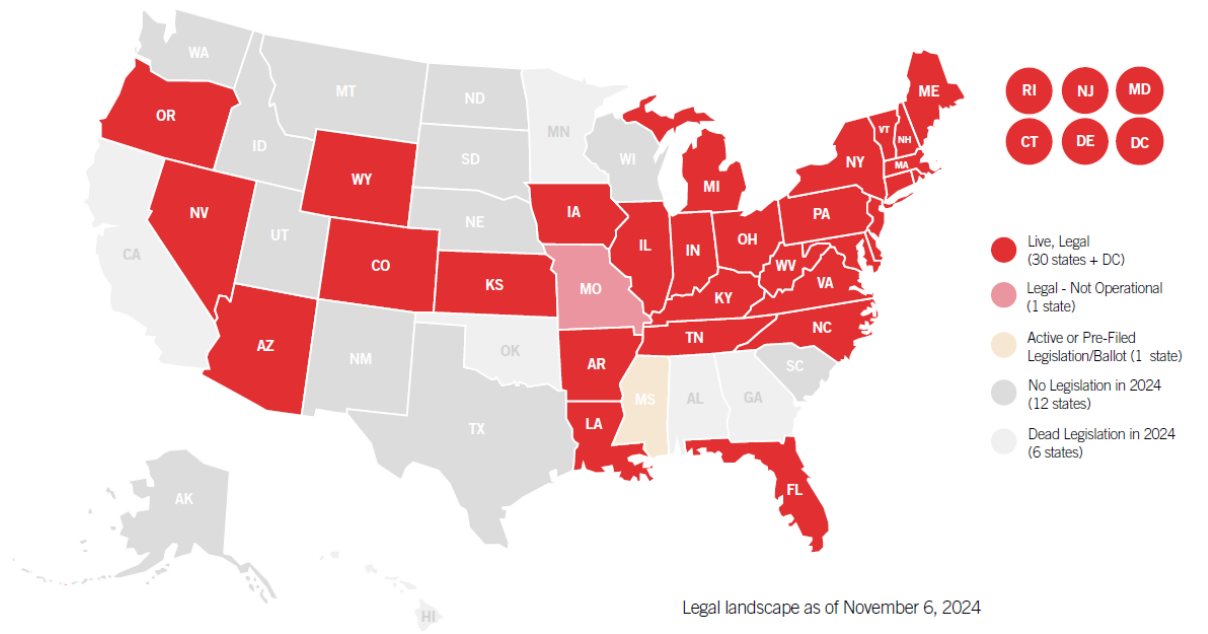
Sports Betting History

- Sports betting was previously illegal under the Professional and Amateur Sports Protection Act (PASPA) of 1992. However, Delaware, Montana, Nevada, and Oregon had pre-existing sports lotteries were allowed to retain sports betting.
- In 2018, the Supreme Court in *Murphy v. National Collegiate Athletic Association* struck down PASPA, allowing for other states to legalize sports betting.
- In 6 years, \$306 billion (handled), \$25.3 billion (gross revenue), \$4.6 billion (taxes) ([Legal Sports Report, 2024](#))
 - Nevada \$36.9 billion (handled), \$2.1 billion (gross revenue), \$142 million (taxes)
 - Super Bowl 2024: \$186.5 million wagered through Nevada's sports books

U.S. Legal Sports Betting



U.S. Sports Betting: Mobile



American Gaming Association



Q3 2024 GGR PER GAMING VERTICAL, ANNUAL CHANGE*

	Total GGR	Traditional Casino GGR	Sports Betting GGR	iGaming GGR
	\$17.71B	\$12.38B	\$3.24B	\$2.08B
Over Q3 2023	+8.1% ▲	-0.9% ▼	+42.4% ▲	+30.3% ▲

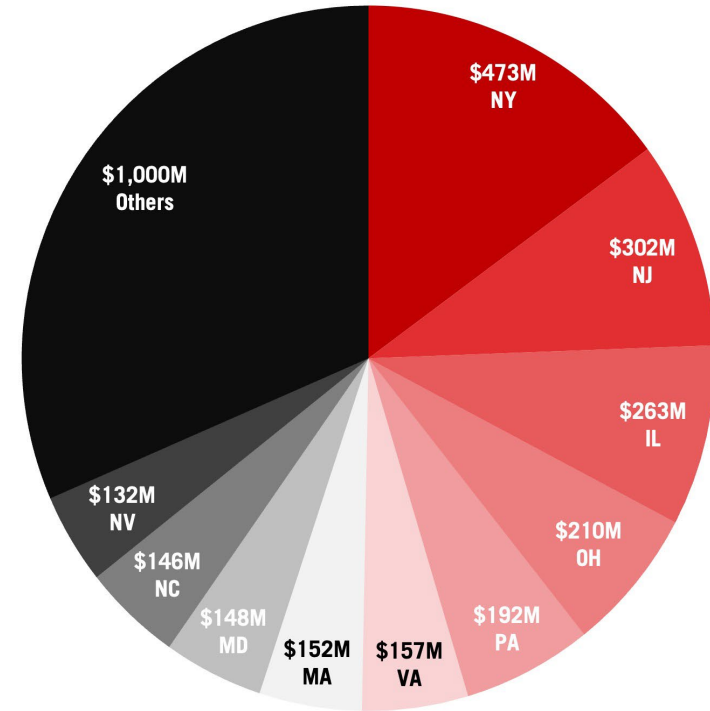
YTD GGR PER GAMING VERTICAL, ANNUAL CHANGE*

	Total GGR	Traditional Casino GGR	Sports Betting GGR	iGaming GGR
	\$53.24B	\$37.20B	\$9.96B	\$6.03B
Over Jan.-Sep. 2023	+8.0% ▲	+0.4% ▲	+33.6% ▲	+27.2% ▲

*Tennessee sports betting revenues are estimates based on historic hold rates. As of the publication date, September sports betting revenue for Arizona was not available.
 SOURCE: AMERICAN GAMING ASSOCIATION

SPORTS BETTING REVENUE BY STATE – Q3 2024

■ NY ■ NJ ■ IL ■ OH ■ PA ■ VA ■ MA ■ MD ■ NC ■ NV ■ Others



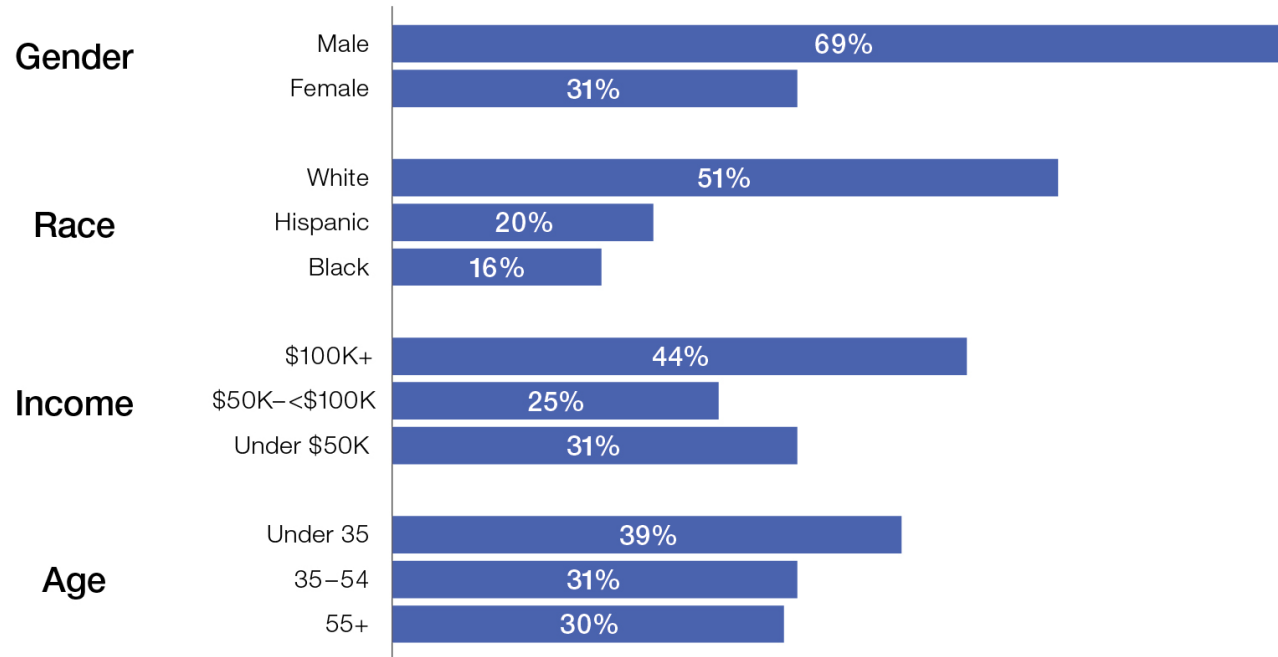
Source: American Gaming Association

American Gaming Association



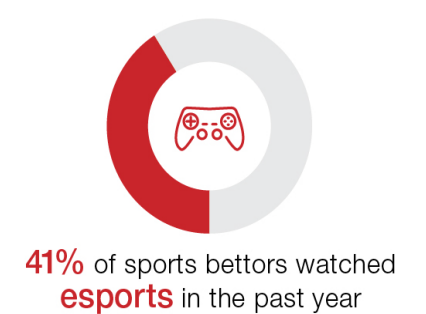
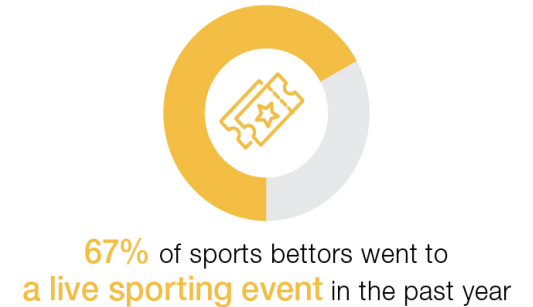
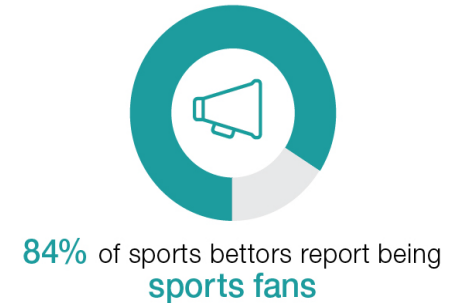
Who Bets on Sports?

Most bettors are male; nearly half are younger or wealthy



Source: Ipsos January 13–15, 2023, among 1,035 U.S. adults. Sports bettors are a small sample of the overall survey (N=~80)

Sports bettors are very engaged with the sporting world



Source: Ipsos January 13–15, 2023, among 1,035 U.S. adults. Sports bettors are a small sample of the overall survey (N=~80)

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Problematic Sports Betting – Part 1

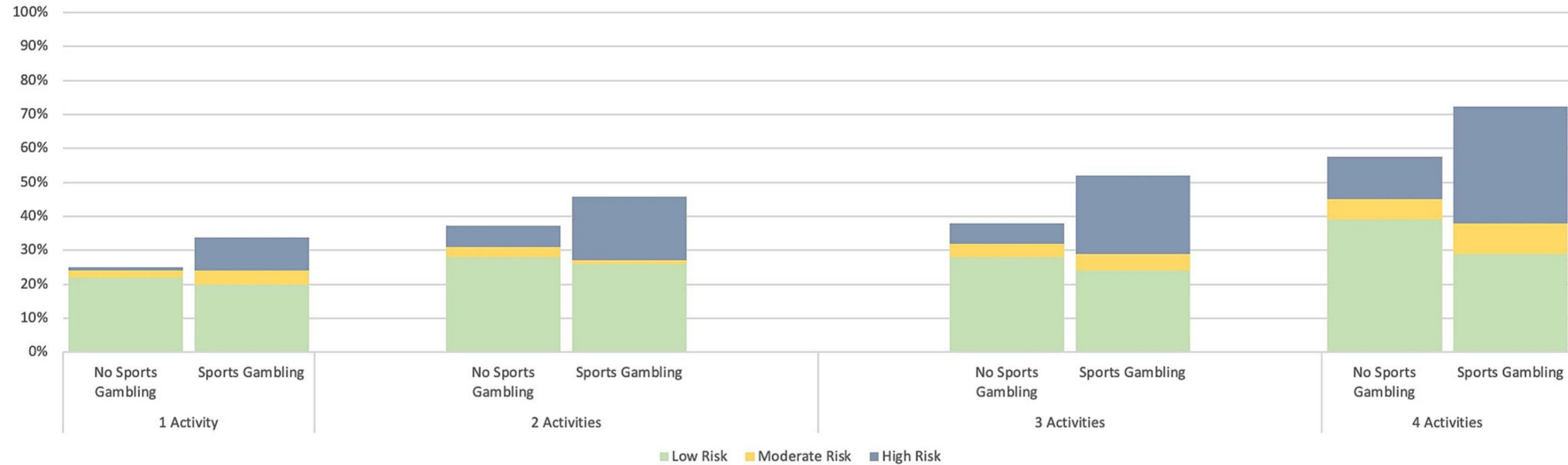
Sample of 2806 US adults and 1557 US sports bettors:

- Sports wagering involvement, being male, younger, more religious, of higher income, and residing in a state where sports wagering is legal were associated with greater likelihood of play.
- E-sports wagering, daily fantasy league play, and general sports wagering are each associated with greater symptoms of problem gambling
- Engagement in general sports betting, daily fantasy play, and e-sports wagering were each associated with being categorized as a moderate-risk or-high-risk gambler, although general fantasy sports play was not. ([Grubbs & Kraus, 2022, JAMA Network Open](#)).

Sample of 2806 US adults

- People, who gamble on sports, seem to be at higher risk of problem gambling than people who do not bet on sports; however, this risk is related to the greater degree of gambling engagement. People who bet more often and on two or more sports increase their risk for problem gambling ([Grubbs & Kraus, 2023, Comprehensive Psychiatry](#)).

Percentage of Persons who Gamble on Sports Categorized as Low, Moderate, or High Risk Based on Number of Activities Engaged in and Sports Betting Status



		No Risk	Low Risk	Moderate Risk	High Risk
1 Activity	No Sports Gambling	75% (0.6)	22% (0.2)	2% (-0.9)	1% (-2.3)
	Sports Gambling	66% (-0.9)	20% (-0.2)	4% (1.3)	10% (3.4)
$\chi^2[3]=20.37, p<.001; \text{Cramer's } V = .216$					
2 Activities	No Sports Gambling	63% (0.8)	28% (0.3)	3% (0.9)	6% (-2.6)
	Sports Gambling	53% (-0.9)	26% (-0.3)	1% (-1.1)	19% (3.0)
$\chi^2[3]=19.19, p<.001; \text{Cramer's } V = .202$					
3 Activities	No Sports Gambling	61% (1.6)	28% (0.6)	4% (-0.5)	6% (-3.4)
	Sports Gambling	47% (-1.3)	24% (-0.5)	5% (0.4)	23% (2.8)
$\chi^2[3]=24.84, p<.001; \text{Cramer's } V = .236$					
4 Activities	No Sports Gambling	43% (3.2)	39% (2.3)	6% (-1.3)	12% (-4.7)
	Sports Gambling	28% (-1.2)	29% (-0.9)	9% (0.5)	34% (1.8)
$\chi^2[3]=44.95, p<.001; \text{Cramer's } V = .175$					

Problematic Sports Betting – Part 2

Sample of 2806 US adults and 1557 US sports bettors:

- Sports bettors have higher engagement with substances (alcohol, cannabis) and other behavioral disorders (gaming, pornography) compared to non-sports bettors. Individuals, who wager on e-sports and take part in daily fantasy leagues or traditional sports wagering, are at elevated risk of reporting symptoms of addiction ([Grubbs & Kraus, 2023, Cogent Mental Health](#)).

Sample of 4363 US adults:

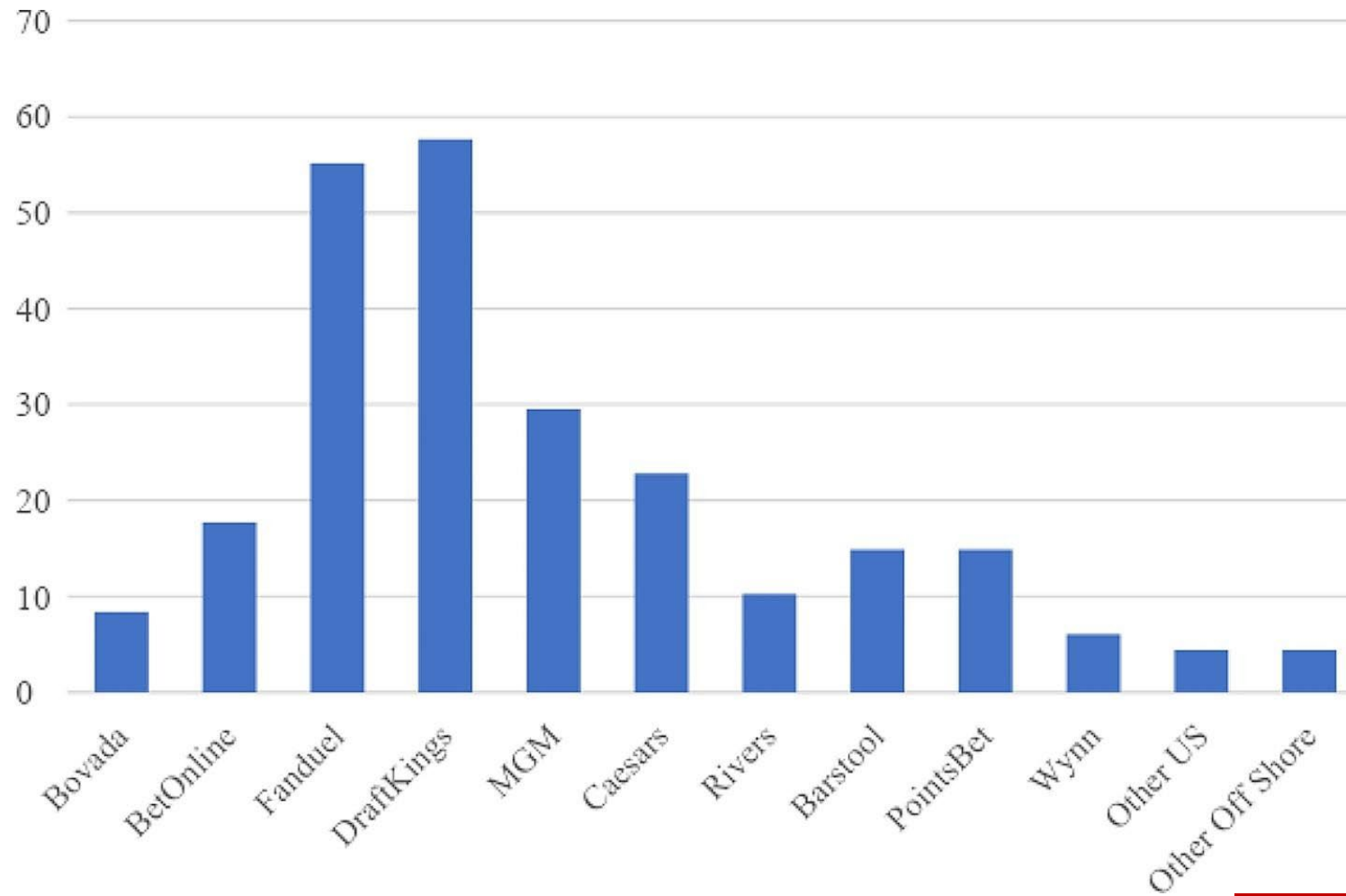
- Sports wagerers were disproportionately more likely to report binge drinking at monthly or greater frequency over the past 12 months and were also disproportionately less likely to report no binge drinking episodes in the past 12 months
- Sports gamblers were substantially more likely to report higher levels of binge drinking, suggesting that elevated risky drinking episodes among sports gamblers are not due to demographic differences [Grubbs and Kraus, 2024, JAMA Open Network](#)

Positive Play Among US Sports Wagering Behaviors (n=561)

The **Positive Play Scale (PPS)** is the primary measure of this construct (Wood et al., [2017](#)) and consists of four distinct subscales derived from two unique components: (1) players' positive or responsible beliefs about gambling (e.g., personal responsibility and gambling literacy), and (2) players' positive and responsible gambling behaviors (e.g., honesty and control and pre-commitment).

- **Personal Responsibility** assesses the extent to which players accept that they hold responsibility for money and time they spend gambling.
- **Gambling Literacy** subscale assesses the extent to which players hold an accurate understanding about their odds of winning.
- **Honesty and Control** assesses the extent to which players are open and truthful with others about the amount of money and time they spend gambling, and how in-control they are of their gambling behaviors.
- **Precommitment** assesses the extent to which players consider how much money and time they should spend gambling.

Positive Play Among US Sports Wagering Behaviors (n=561)



[Connolly, Stall, Floyd, Kraus, & Grubbs, 2024; J of Gambling Studies](#)

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Positive Play Among Sports Wagering Behaviors (n=561)

Table 4 Multiple logistic regressions predicting type of wager placed among sports gamblers based on positive play scores

	Moneylines	Parlays	Point Spreads	Totals	Player Props	Prop Bets
	Odds Ratio (95% CI)	Odds Ratio (95% CI)	Odds Ratio (95% CI)	Odds Ratio (95% CI)	Odds Ratio (95% CI)	Odds Ratio (95% CI)
N						
Honesty and Control	1.10 [0.88, 1.38]	1.06 [0.86, 1.29]	0.83 [0.67, 1.02]	0.88 [0.71, 1.08]	1.06 [0.84, 1.34]	0.91 [0.72, 1.14]
Pre-Commitment	0.89 [0.68, 1.16]	0.93 [0.73, 1.19]	1.02 [0.80, 1.30]	0.99 [0.78, 1.26]	1.07 [0.82, 1.42]	1.20 [0.91, 1.59]
Gambling Literacy	1.18* [1.02, 1.36]	0.82** [0.72, 0.94]	0.92 [0.81, 1.05]	0.89 [0.78, 1.01]	0.70** [0.61, 0.81]	0.78** [0.67, 0.90]
Person Responsibility	1.28* [1.02, 1.62]	1.30 [1.03, 1.64]	1.35* [1.07, 1.71]	1.39** [1.10, 1.76]	1.32* [1.01, 1.74]	1.58** [1.17, 2.13]

Note. * $p < .05$, ** $p < .01$

[Connolly, Stall, Floyd, Kraus, & Grubbs, 2024; J of Gambling Studies](#)



Positive Play Among Sports Wagering Behaviors (n=561)

Table 6 Multiple logistic regressions predicting site used among sports gamblers based on positive play score

	Bovada	BetOnline	FanDuel	DraftKings	BetMGM/Borgata	Caesars/WH	Barstool	PointsBet	WynnBet	OtherUS	OtherOff
	Odds Ratio (95% CI)	Odds Ratio (95% CI)	Odds Ratio (95% CI)	Odds Ratio (95% CI)	Odds Ratio (95% CI)	Odds Ratio (95% CI)	Odds Ratio (95% CI)	Odds Ratio (95% CI)	Odds Ratio (95% CI)	Odds Ratio (95% CI)	Odds Ratio (95% CI)
Honesty and Control	1.22 [0.77, 1.94]	1.17 [0.84, 1.63]	1.16 [0.91, 1.46]	1.06 [0.84, 1.34]	1.17 [0.90, 1.53]	1.16 [0.86, 1.56]	1.29 [0.88, 1.87]	0.83 [0.58, 1.17]	1.19 [0.70, 1.98]	0.81 [0.50, 1.32]	0.52** [0.34, 0.80]
Pre-Commitment	0.74 [0.45, 1.23]	0.76 [0.53, 1.11]	0.89 [0.67, 1.18]	0.97 [0.73, 1.28]	0.99 [0.73, 1.34]	1.14 [0.81, 1.62]	0.90 [0.59, 1.35]	1.33 [0.89, 2.00]	0.76 [0.43, 1.34]	0.79 [0.44, 1.44]	2.10* [1.10, 4.01]
Gambling Literacy	0.62** [0.48, 0.80]	0.71** [0.59, 0.86]	0.80** [0.69, 0.93]	0.91 [0.79, 1.06]	0.87 [0.74, 1.02]	0.72** [0.61, 0.86]	0.63** [0.51, 0.77]	0.53** [0.43, 0.65]	0.83 [0.62, 1.10]	1.34 [0.92, 1.97]	1.41 [0.93, 2.15]
Person Responsibility	0.89 [0.61, 1.29]	0.85 [0.63, 1.13]	1.60** [1.22, 2.10]	1.16 [0.90, 1.50]	1.00 [0.75, 1.32]	1.01 [0.74, 1.37]	1.21 [0.84, 1.74]	1.20 [0.84, 1.70]	1.00 [0.62, 1.60]	1.76 [0.83, 3.73]	0.72 [0.38, 1.36]

Note. * $p < .05$, ** $p < .01$

[Connolly, Stall, Floyd, Kraus, & Grubbs, 2024; J of Gambling Studies](#)



Questions??

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New Language for Responsible Gambling

Gambling should be a
source of entertainment,
not financial, social or
emotional ruin.

Background



The topic of responsible gambling has been the focus of debate over recent years.



Unfortunately, the language surrounding responsible gambling has proven ineffective, due to varying definitions and debate over stigma related to responsibility.



We're going to discuss the importance of language in communicating about consumer protection and harm minimization to the public.



The Steps Needed to Redefine Responsible Gaming

1) Decoupling responsible gambling and problem gambling to reduce the barrier of stigma;



2) Reframing responsible gambling, and



3) The need for conversations amongst peers and parents, all with the view to proactively prevent gambling-related harms.

RESPONSIBLE DRINKING

*A Discreet Inquiry
and a
Modest Proposal*

By
ROBERT C. BINKLEY



*This book tells how we can become
a gayer—and more sober—nation*

10 RESPONSIBLE DRINKING STRATEGIES



1. Stay with the same group of friends the entire time drinking.



2. Use a designated driver



3. Eat before and/or during drinking



7. Determine in advance not to exceed a set number of drinks



6. Avoid Drinking Games



5. Stick with only one kind of alcohol



4. Keep track of how many drinks are being consumed



8. Have a friend let you know when you have had enough



9. Alternate non-alcoholic with alcoholic beverages



10. Pace drinks to one or fewer per hour

Responsible Gambling: Key Themes

Affordability

Ensuring that individuals only spend what they can comfortably afford to lose, without negatively impacting their financial well-being.

Balance

Promoting a balanced approach to gambling, where it is seen as a form of entertainment rather than a means of generating income.

Informed Choice

Providing players with accurate, transparent information about the odds and risks associated with gambling, enabling them to make informed decisions.

Control

Empowering individuals to maintain control over their gambling behavior, with tools and resources to help them stay within their limits.

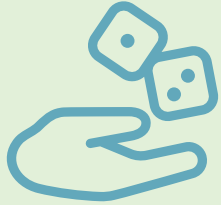
Enjoyment

Ensuring that gambling remains a source of enjoyment and entertainment, rather than becoming a problematic or addictive behavior.

Gambling Harm-free

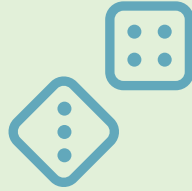
Minimizing the negative impacts of gambling by promoting a gambling environment that is enjoyable, an harm-free safe and responsible.

Responsible Gambling Practices



Promoting Responsible Gambling

Encouraging players to set limits, take breaks, and prioritize their well-being.



Providing Self-Exclusion Options

Allowing users to temporarily or permanently exclude themselves from gambling platforms.



Offering Educational Resources

Informing players about the risks of problem gambling and providing support services.



Implementing Responsible Advertising

Ensuring that gambling advertisements do not target vulnerable individuals or promote irresponsible behavior.

By incorporating these responsible gambling practices, we can create a safer and more sustainable gambling environment for all.



Peers and Parents

Peer Discussion on Responsible Gambling



Define Responsible Gambling

Responsible gambling involves making informed decisions about the amount of time and money spent on gambling activities, and understanding the risks involved.



Establish Gambling Limits

Set personal limits on the amount of time and money spent on gambling and stick to these limits to avoid problem gambling behaviors.



Seek Support Services

If gambling becomes problematic, seek support from counseling services or organizations that specialize in problem gambling issues.



Educate Oneself

Learn about the odds and probabilities associated with different gambling activities to make more informed decisions.

By encouraging friends and family to practice responsible gambling, peers can support individuals in enjoying the entertainment value of gambling while minimizing the risks and potential for harm.

New Language for Responsible Gaming

Adopting a more positive and empowering language to promote responsible gaming practices, focusing on player health and wellbeing.

- **Safer Gambling**

Implementing robust measures to ensure a safer gambling environment, with a focus on harm minimization and player protection.

- **Harm Minimization**

Strategies to minimize the potential risks and negative impacts of gambling, promoting a healthier and more sustainable gaming experience.

- **Player Protection**

Safeguarding players' interests and rights, ensuring a fair and secure gaming environment with robust mechanisms for addressing concerns.

- **Player Health & Wellbeing**

Prioritizing the overall health and wellbeing of players, addressing both mental and physical aspects of responsible gaming.

- **Player Safety**

Ensuring the safety and security of players, both in the digital realm and in their interactions with the gaming industry.

“A good hockey player plays where the puck is. A great hockey player plays where the puck is going to be.”

- Wayne Gretzky





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Evaluating Language and Communication Surrounding Responsible Gambling

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Keywords

Responsible Gambling; Problem Gambling; Messages; Language

Disciplines

Advertising and Promotion Management | Communication

Document Type

Original Review Article (Essays, Opinion Pieces, and/or Book Reviews)

Abstract

The topic of responsible gambling has been the focus of debate over recent years. Unfortunately the language surrounding responsible gambling has proven ineffective, due to varying definitions and debate over stigma related to responsibility. This paper discusses the importance of language in communicating about consumer protection and harm minimization to the public. Three key areas of discussion are highlighted: 1) decoupling responsible gambling and problem gambling to reduce the barrier of stigma; 2) redefining responsible gambling, and 3) the need for conversations amongst peers and parents, all with the view to proactively prevent gambling-related harms.

Funding Sources

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A landscape featuring a single, full-canopied green tree standing in the center of a vast, flat green field. A light-colored gravel path winds through the field, starting from the bottom center and curving towards the left and right sides. The sky is bright blue with scattered white and grey clouds.

New Language for Responsible Gambling

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