Prediction Markets and the First Amendment

Miriam A. Cherry*
Robert L. Rogers**

Thine oracle, in vain to be
Oh wherefore am I thus consigned,
With eyes that every truth must see,
Lone in the city of the blind?\(^1\)

In October 2006, Congress passed The Unlawful Internet Gambling Enforcement Act, aimed at ending internet gambling.\(^2\) Although perhaps not its intent, the bill creates further legal uncertainty for prediction markets, an emerging technology that allows thousands of people to join together to make predictions about the future in a market-based setting. These prediction markets, unlike many other economic activities, contain important elements of speech and expression, and therefore should be accorded substantial First Amendment protection. This Article explores the interplay between this

\*Associate Professor of Law, University of the Pacific, McGeorge School of Law; B.A., 1996, Dartmouth College; J.D., 1999, Harvard Law School.

\**Associate Opinion Editor, Legal Times; B.A., 1996 University of Texas; J.D., 1999, Harvard Law School.

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\(^1\) Schiller, Cassandra, in THOMAS BULLFINCH, BULLFINCH’S MYTHOLOGY 250 (1948).

emerging technology, the First Amendment, and the recent gambling legislation. The Article also discusses how many traditional models of regulation, including the regimes governing gambling, securities law, and commodities, fit poorly with this new form of collaborative information-gathering. To overcome this clash between the First Amendment and regulatory efforts, the Article provides specific recommendations regarding the ways in which the Executive Branch, Congress, and the courts can help resolve the conflict between the First Amendment and restrictions on prediction markets, including a proposal for a judicial test modeled on existing First Amendment principles.

Although gambling websites already were prevented from operating in the United States under the Department of Justice’s interpretation of the Wire Act before the October 2006 legislation, many companies had sidestepped this interpretation by relocating their businesses offshore. The October legislation foreclosed that option by preventing credit card companies from making payments to gambling websites, regardless of their location. Although analysts certainly can debate the merits of this recent crackdown – perhaps designed as an appeal to the religious right before the

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5 In this Article, our focus is the effect of the internet gambling ban on prediction markets. Whether the decision to ban certain forms of gambling is a wise policy choice is beyond the scope of this Article. At the same time, we do note the concern that money that once went to online casinos may ultimately support organized crime. See Peter Sanders, *Why the Local Bookie Could Be a Big Winner in 2007 Super Bowl*, WALL ST. J., Jan. 31, 2007, at B1 (noting that government crackdown is not eliminating gambling, just
November 2006 congressional elections\textsuperscript{6} – the fact is that this legislation has far-reaching consequences in ways that Congress probably did not intend.\textsuperscript{7} One of those unintended consequences may be the inhibition of prediction markets.

Prediction markets, also known as information markets, or idea futures,\textsuperscript{8} are a relatively new technology that allows many individuals to express their opinions in a market setting. By letting people put “their money where their mouth is,” information markets encourage thousands of people to join together in cyberspace to predict future events.\textsuperscript{9} These markets are more than games of chance or entertainment, given that they draw on the unique information, knowledge, and skills that individual participants bring driving it underground). In addition, it is important to realize that currently, our system of regulating gambling itself is a patchwork, including jurisdictions that allow all sorts of gambling, those that forbid gambling, and those that engage in state-sponsored gambling in the form of lotteries. Without delving too far into the policy debate, one could plausibly argue that the prohibitions against gambling have been fading that many of those prohibitions may not conform to the stated rationales for them. See Section III, infra.

\textsuperscript{6} See, e.g., Anna Palmer, Online-Gambling Interests Lose 10-Year Fight, LEGAL TIMES (Oct. 9, 2006) at 13 (describing lobbying fight as “huge victory for social conservative groups”).

\textsuperscript{7} Even after the bill, the furor over internet gambling continues, with the Department of Justice subpoenaing investment banks that had underwritten the initial public offerings of several overseas gambling companies. See Andrew Ross Sorkin & Stephanie Saul, Gambling Subpoenas on Wall St., N.Y. TIMES, Jan. 22, 2007, at A1.

\textsuperscript{8} Tom W. Bell, Prediction Markets for Promoting the Progress of Science and the Useful Arts, 14 GEO. MASON L. REV. 37, nn.18-21 (2006) (listing different terminology used for the markets). While in this Article we tend to use “prediction market” and “information market” interchangeably, the term “prediction market” may be less confusing, as “information market” potentially conjures the specter of the sale of personal information on the internet or data mining, which, while important issues, are wholly unrelated to our project.

\textsuperscript{9} See MICHAEL ABRAMOWICZ, PREDICTOCRACY 1-8 (forthcoming, Yale University Press 2007) (draft on file with authors).
with them to the market. Prediction markets distill participants’ collective wisdom and in so doing, advance utilitarian goals, creating social welfare and monetary value that go beyond the amounts invested in the markets. Prediction markets are not subject to many of the ills traditionally associated with gambling, given the lack of involvement by organized crime, the small monetary sums involved, and the minimal risk of addiction. Yet, in the congressional zeal to stamp out Internet gambling, information markets are in danger of being trampled.

Because of the expressive element inherent in prediction markets, we contend that one’s participation in such a market is entitled to First Amendment protection. Each person who participates in an information market is, in essence, being asked for their opinion on the outcome of an uncertain future event. A survey of the markets currently operating shows that they have tended to cluster in certain areas, predicting political events, current events, as well as developments in entertainment, science, and technology. Currently, more than a third of publicly traded information markets work to predict the outcomes of elections and newsworthy issues. These subjects are all areas of public concern, as that term is traditionally used in First Amendment jurisprudence, and, indeed, many of these subjects involve areas of core political speech.


11 See Section III, infra.


13 Id.
In addition to the speech rights of the individual participants, information markets as a whole generate predictions that are a form of “metaspeech” that should also be allowed to flourish.

Although several other commentators have offered preliminary identification of the existing regulatory regimes – commodities trading, securities regulation, and gambling laws - that might be applied to information markets, there has been little discussion of the interaction of prediction markets with the First Amendment. Certain characteristics of prediction markets, such as their reliance on information, skill, and knowledge, make them different from gambling or other games of chance, or even from games of mixed skill and chance, such as poker. Prediction markets are also different from traditional stock markets, which exist for the purposes of raising capital and sharing risk and reward among investors. And certain characteristics of information markets set

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15 The discussion to date is a brief website post by Robin Hanson. Professor Hanson is a visionary in the field of information markets, and on his website he argues that participation in an information market should be considered expression. See http://hanson.gmu.edu/iffreespeech.html.
them apart from commodities markets, which are designed to allow entities to engage in hedging strategies to manage their risk exposure.16

In Part I, we provide a brief background on the workings of prediction markets and an analysis of how the provisions of the recent Internet gambling bill might affect them. In Part II, we identify some of the expressive interests at stake in a prediction market, both by the individual participant and, intriguingly, by the market itself. Then, in Part III, we address the commodities, securities, and gambling laws—arguably areas of law that some might regard as offering models for regulating information markets—but, importantly, discuss the expressive elements that distinguish prediction markets from these regulated areas. In Part IV, we discuss two models of First Amendment regulation, expressive conduct and commercial speech, that might at first seem to be applicable. However, because prediction markets are different from the “usual” speech addressed by those doctrines, a different solution is needed. Finally, in Part V, we explore how the legal uncertainties surrounding information markets could be alleviated—through regulatory, statutory, and judicial solutions.

I. BACKGROUND: A TRUE MARKETPLACE OF IDEAS

Oliver Wendell Holmes’ analogy of free speech as “a marketplace of ideas” is compelling because it describes an environment in which speakers and listeners in search of truth can place value upon and choose between competing thoughts.17 With the technological advances that have led to information markets, Holmes’ analogy is transformed into a setting where predictions compete in cyberspace, with the aggregation

16 See Section III, infra.

of many individual ideas and thoughts into a market price expressing the collective knowledge of the group. In this section, we provide a brief background on how prediction markets work and the various subjects that they cover, and then, in the second section, we discuss the potential impact of the recent internet gambling bill on these markets.

A. How Prediction Markets Work and the Subjects They Cover

As noted previously, prediction markets organize and aggregate individual knowledge into a collective result. Each individual who is a trader in the information market acts to maximize his or her own reward. At the same time, the organizers of the market organize the results and harvest the valuable information that individuals have generated. In his popular book, *The Wisdom of Crowds*, James Surowiecki explains numerous ways in which such collective knowledge can be employed. Whether individuals are asked to estimate the location of a sunken submarine, to guess the weight of an ox, or to help a contestant on the game show “*Who Wants to Be a Millionaire*,” groups provide accurate answers to questions that most individuals would

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18 For a broad overview of free speech rights in cyberspace, see Mike Godwin, *Cyber Rights* 13-23 (1998) (listing and describing free speech rights in the digital age).


20 Id. at xx-xxi.

21 Id. at xi-xiii.

22 On the television program “*Who Wants to Be a Millionaire*” contestants had to answer trivia questions in multiple-choice format. Each contestant had several “lifelines” that they could use, including narrowing the options, telephoning a friend, and polling the audience. Although the first two options were often helpful, the audience for the television program was the most helpful of all, achieving a 91 percent success rate. Cf. Saul Levmore, *Conjunction and Aggregation*, 99 Mich. L. Rev. 723, 734 n. 22 (2001)
not be able to answer on their own. In a prediction market, individuals are given incentives to trade and contribute their knowledge in a formalized setting.

The theory behind prediction markets is loosely related to the semi-strong version of the efficient market hypothesis (EMH), which holds that, in a properly functioning capital market, the prices of securities will reflect all relevant publicly available information.\(^23\) The price of a security on the market encodes a significant amount of information, including beliefs about the efficacy of management, the potential for future products, or market expansions.\(^24\) In other words, most markets have a “price discovery” function, aggregating information and predictions into the current price of that security.\(^25\) In traditional capital markets, however, the information-seeking aspects are, to a certain degree, by-products of trading and raising capital. In contrast, this information-seeking is the sole reason for the prediction market’s existence.

At present, numerous information markets are successfully making predictions. Perhaps most notably, especially during the past two hotly contested presidential elections, is the Iowa Electronic Markets (“IEM”).\(^26\) The IEM, started in 1988 by

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\(^{24}\) See Fama, *supra* note 23 at 383.


professors at the University of Iowa Business School, has been operating since that time to predict the outcomes of various elections.\footnote{27} An individual trader is limited to a $500 investment, so although the financial stake of any one person in the outcome is modest, each still has a financial incentive for making a correct prediction.\footnote{28}

The IEM has predicted the outcomes of elections more accurately than polls have, beating the polls seventy-six percent of the time.\footnote{29} This accuracy occurs despite the fact that researchers at the University of Iowa have concluded that many of the market participants exhibit a strong bias toward one candidate or other.\footnote{30} Apparently, the market is able to correct for these biases through arbitrage.\footnote{31} Sensing an opportunity for profit,

\footnote{27 Joyce Berg, et al., Results from a Dozen Years of Election Futures Markets Research 1 (Nov. 2000) at \url{http://www.biz.uiowa.edu/iem/archive/BFNR_2000.pdf} [hereinafter Berg, et al., Results]. The IEM has also expanded into predictions further afield from its base of political predictions. \textit{Id.} at 7 n.10; Jordan Erin, \textit{U of I Markets Tapped to Predict Flu Activity}, DES MOINES REG., Nov. 22, 2004, at B1, \textit{available at} 2004 WL 100489665.}


\footnote{30 Berg, et al., Results, \textit{supra} note 37, at 5. The average trader is younger, more likely to be a white male, Republican, and of a higher socio-economic status than the average voter. Berg, et al., Accuracy, \textit{supra} note 39, at 10.}

\footnote{31 See, e.g. Donald C. Langevoort, \textit{Taming the Animal Spirits of the Stock Markets: A Behavioral Approach to Securities Regulation}, 97 NW. U. L. REV. 135, 140 n. 15 (defining arbitrage as the “process by which informed traders buy or sell in such a way as to eliminate any mispricing caused by uninformed trading. For example, when a stock becomes overvalued because uninformed traders are bidding it up, informed traders would sell, hence moving the price back to its rational expectations equilibrium.”)}
arbitrageurs temper the ideological biases that some of the participants bring with them when they invest in the IEM. 32

Other similar political prediction markets have appeared to predict the outcome of elections in Austria, 33 Germany, 34 and Canada. 35 While the IEM is run by an education institution, some election markets are run by for profit companies. For example, Intrade, a commercial information market, correctly predicted the outcome of the 2006 congressional elections, with more success than many television analysts. 36 Intrade is currently allowing participants to trade predictions about the outcome of the 2008 presidential election. 37 In addition to elections, a significant number of markets make predictions about current events, including politics, news, and the entertainment industry. 38

32 Berg, et al., Results, supra note 27, at 6.
37 Id.
38 Cherry & Rogers, Markets for Markets, supra note 12 at 351-53, 372-75 (providing survey of the subject matter of prediction markets).
The scientific community also uses prediction markets to gauge everything from the progress of stem cell research to the timetable for the availability of human cloning.\textsuperscript{39} Public health experts, for example, are using a real-money information market to predict the likelihood of an avian-flu epidemic; the Robert Wood Johnson Foundation has donated nearly $250,000 to this effort.\textsuperscript{40}

Prediction markets can cover questions ranging from the narrow to the extremely broad. The software company Rite-Solutions, for instance, uses an internal prediction market for its business planning.\textsuperscript{41} And for truly big-picture topics--such as the survival of humanity until the year 2100--Long Bets, funded partly by Amazon.com’s Jeff Bezos, lets anyone articulate a prediction and open it up to the market.\textsuperscript{42} (Although Long Bets uses real money, the awards go to a charity that the winner selects.)\textsuperscript{43} Participants on Long Bets include Britain’s astronomer royal Martin Rees, the computer scientist Mitchell Kapor, the physicist Freeman Dyson, and the \textit{New York Times} journalist John Tierney.\textsuperscript{44}

\textsuperscript{39} Id.

\textsuperscript{40} Mike Stobbe, \textit{Health Experts Bet on Spread of Bird Flu}, ASSOCIATED PRESS, March 1, 2007.


\textsuperscript{43} Id.

\textsuperscript{44} Id.
Information markets, in short, are a legitimate undertaking, with reputable participants making predictions on subjects that matter. And if these markets continue to develop, the future could bring remarkably accurate predictions in a number of areas, including Supreme Court decisions and administrative outcomes.\(^{45}\) The potential subject matter for information markets may, ultimately, only be constrained by the limits of human collective knowledge.\(^{46}\)

B. Recent Internet Gambling Legislation

Unfortunately, recent legislation, to the extent that it applies to information markets, may create further legal uncertainty that could impede the growth of this important innovation. In October 2006, Congress passed the “Unlawful Internet Gambling Enforcement Act of 2006.”\(^{47}\) The Act was meant to restrict the use of credit cards in Internet gambling. In general, it bans persons engaged in the business of betting or wagering from accepting, in connection with the participation of another person in “unlawful Internet gambling,”\(^{48}\) the use of credit cards, electronic funds transfers, and


\(^{46}\) Cherry & Rogers, *Tiresias and the Justices*, supra note 12 at 1195. Prediction markets may also help establish the limits of that knowledge.


\(^{48}\) “Unlawful Internet gambling” is defined in general to mean “to place, receive, or otherwise knowingly transmit a bet or wager by any means which involves the use, at least in part, of the Internet where such bet or wager is unlawful under any applicable
checks from a financial institution. Remedies include civil actions by attorneys general, both state and federal, to obtain injunctive relief and criminal penalties of fines and up to five years imprisonment. No explicit private right of action exists.

Many real-money prediction markets use credit cards, and to some observers, the activities may seem akin to gambling. (We later discuss why there are important differences that the law should recognize.) In light of these surface similarities, one might initially fear that the bill would significantly harm prediction markets. Indeed, some of the earliest commentary on the Act expressed exactly these sorts of fears. Such concerns are understandable and may ultimately prove prophetic. Moreover, even if prediction markets ultimately are not covered by this law, the very fact such fears exist is significant because it may chill investment, development, and participation in such markets. The legal uncertainty is itself an impediment to the development of this field.

Federal or State law in the State or Tribal lands in which the bet or wager is initiated, received, or otherwise made.” 31 U.S.C. § 5362(10)(A). We discuss this definition in detail below.


52 With this bill we would be surprised to see the creation of a private right of action, if only because the statutory interests created seem to belong to governmental bodies rather than to any particular class of the public. See generally Cort v. Ash, 422 U.S. 66 (1975).

53 Robert Hahn & Paul Tetlock, Short Odds for Ignorance, N.Y. TIMES, Oct. 9, 2006, at A17 (“The bigger economic story is how this act, by effectively prohibiting Internet betting, could unintentionally slow the emergence of new tools that have the potential to improve the productivity of the private sector and the government. Sadly, this is an aspect of the measure that both its supporters and its opponents seem to have overlooked.”).
Fortunately, however, several statutory elements can give at least some relief to those who wish to see information markets develop, as well as perhaps make it less likely that federal prosecutors will unthinkingly treat prediction markets as just another form of gambling. And for the courts that may ultimately have to pass judgment on the constitutionality of the act, this statutory language, if interpreted wisely, can avoid the constitutional problems that would otherwise result and thus potentially save the statute from what otherwise might be fatal First Amendment problems.

As one of the first limiting elements, the Act, as a rule of construction, states that no provision “shall be construed as altering, limiting, or extending any Federal or State law or Tribal-State compact prohibiting, permitting, or regulating gambling within the United States.” The term “gambling” is not defined in the act, so the Department of the Treasury and the Federal Reserve (and ultimately the courts) may have to work out the meaning of this term. Yet however “gambling” is ultimately defined (and the future regulatory or judicial definition may exclude many or all information markets), the implication is that to the extent that an information market was permissible under U.S. law before the passage of the act, the information market remains legal. This is


55 31 U.S.C. § 5364 directs the Secretary of the Treasury and the Board of Governors, in consultation with the Attorney General, to prescribe regulations dealing with restricted transactions. These forthcoming regulations could (and one suspects are likely) to contain a definition of “gambling” for purposes of the act. We discuss the consequences of this at greater length below.

56 One reasonable possibility is for a court to apply the definition of “unlawful Internet gambling” from 31 U.S.C. § 5362(10) to derive a definition of “gambling” for purposes of this act. Under such an attempt, the most likely definition of “gambling” would be “to place, receive, or otherwise knowingly transmit a bet or wager,” with “bet or wager” being defined by 31 U.S.C. §5362(1).
significant because a large number of successful information markets such as the IEM have come into existence under the pre-act regulatory regime. For these markets, the act may have no effect at all. Other markets have more to worry about, but it is worth noting that a significant number of information markets may be able to continue operations unscathed, particularly if they appear to be academic undertakings or use play (virtual) money.

In addition, various definitions in the Act suggest that it should not apply to many common types of prediction markets. These include some of the markets of perhaps greatest academic interest, including the IEM and proposed markets relating to Supreme Court decisions or administrative outcomes. To reach this conclusion, we analyze the definition of “bet or wager” (a key term in the statutory prohibition, as discussed above) and address the various exemptions from this definition.

(1) Meeting the Definition?

In key part, the law states that “bet or wager” means:

the staking or risking by any person of something of value upon the outcome of a contest of others, a sporting event, or a game subject to chance, upon an agreement or

57 Tradesports, for example, settled a regulatory challenge from the Commodities Futures Trading Commission, discussed in Section III, infra. For such information markets that encountered problems under the pre-act regime, the act may well pose significant new problems.

58 If nothing else, the current legality of a market is an argument that may persuade a credit card company to continue processing payments or the act’s enforcers at the Department of Justice to refrain from prosecutions.

59 See note 45, supra.
understanding that the person or another person will receive something of value in the event of a certain outcome.\textsuperscript{60}

What does this mean? Some types of contracts seem obviously covered, regardless of their occurrence in a setting denominated as a “prediction market.” Examples might include transactions, whether in tradeable securities or otherwise, such as the following:

- “I will give you $20 if Dartmouth beats the University of Texas in next Saturday’s football game, and you will give me $20 if Dartmouth does not.”\textsuperscript{61}
- “I bet $20 that Boxer X will defeat Boxer Y in the fight next week.”
- I put down $20 to spin a roulette wheel in cyberspace.

These sorts of transactions contain (1) staking or risking something of value (2) upon a contest of others, a sporting event, or a game subject to chance, (3) with the agreement that this person will get something of value in the event of a certain outcome.

This may seem relatively straightforward, but it is important to recognize how much of the workings of prediction markets do not meet one of these requirements and thus would not be subject to regulation.

First, any market that does not risk “something of value” would not be included. Although the phrase “something of value” is undefined, most likely it means money or

\textsuperscript{60} 31 U.S.C. §5362 (1)(A). The law specifies that this general definition includes the purchase of a chance to win a lottery, the types of schemes in 28 U.S.C. 3702 (that is, government-sponsored betting on sports games), and the instructions pertaining to the establishment or movement of funds to an account with the business of betting or wagering. \textit{See} 31 U.S.C. §5362(1)(B)-(D).

\textsuperscript{61} We are aware, of course, that the two football teams of our alma maters, fine as they may be, are unlikely to ever engage in such a contest.
some other tangible good, not intangibles such as a person’s time, reputation, or emotional satisfaction.\(^\text{62}\) The use of “thing” in the phrase “something of value” suggests this conclusion, and were it otherwise, the law would dramatically expand to cover such activities as an athlete risking happiness on the outcome of playing basketball with friends, playing board games with one’s family, and other common activities that Congress almost certainly did not intend to regulate.\(^\text{63}\) Such an interpretation would dramatically expand the scope of the statute, lead to absurd results, and seem far removed from the common understanding of “gambling” that apparently motivated Congress. If this interpretation is correct—and we think it is, both objectively and as a way to avoid constitutional problems that would result from a broader alternative—it then follows that any prediction market that did not use money or other tangible form of reward would not fall under this legislation. Examples of such markets include Blogshares,\(^\text{64}\) Celebdaq,\(^\text{65}\) and the Foresight Exchange.\(^\text{66}\)

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\(^\text{62}\) Indeed, the statute itself specifies that “value” does not include “personal efforts” in playing the game or obtaining access to the Internet, 31 U.S.C. § 5362(1)(E)(viii), but this specific exclusion should not be able to create coverage not provided by the definition. In other words, this specific exemption seems best interpreted as an attempt to clarify specifically that personal efforts were not included, not as a suggestion that other nontangible rewards (such as emotional satisfaction, admiration of peers, sense of fulfillment, and the like) are covered within the meaning of “value.”

\(^\text{63}\) Congressional intent can be multi-faceted, of course, but in this case, the legislative concern seems to have been about off-shore gambling Web sites. See, e.g., Speech of Hon. Spencer Bachus, Cong. Rec. at ___ (Dec. 7, 2006) (“We needed to pass this law because it is the only way we can effectively enforce State and Federal gambling laws when offshore Web sites offer illegal services to our residents.”)

\(^\text{64}\) http://www.blogshares.com.

\(^\text{65}\) http://www.bbc.co.uk/celebdaq.

Second, any predictive bet that did not rest upon the outcome of “a contest of others, a sporting event, or a game subject to chance” would not be covered, and this arguably excludes much of the most socially valuable prediction markets dealing with subjects of politics, economics, and current events. Of the three categories of activities that would be restricted, “sporting event” is perhaps the easiest to understand and probably means athletic competitions: Football games and boxing matches are clearly covered, whereas chess tournaments and beauty pageants are probably not because they are not traditionally viewed as “sports” (but rather as contests that depend on mental skills or physical appearance, not primarily athletic performance). A “contest of others” seems to require some sort of a formal contest: Chess tournaments and beauty pageants would be included, but economic activity and political elections are probably not. Of course, examples of a business’s performance on the stock market or the success of a presidential candidate on some level involve competing against other companies or would-be leaders, but while comparative judgments are involved in the rise of a stock or the election of a president, these do not seem to be the sort of formal “contests” that the statute envisions.67 Likewise, a “game subject to chance” could on some level include political elections, but this probably was not what Congress was trying to address, and a court wishing a modest and sensible scope for this statute might well construe the terms more narrowly, along the lines that we suggest. If so, and we think this outcome more likely than the adoption of expansive alternatives, then information markets that do not

67 If Congress had intended the statute to be this far-reaching, it arguably would have made note of it during the proceedings. Instead, the main concern seems to have been about the far more narrower subject of off-shore Internet gambling sites. See, e.g., Speech of Hon. Spencer Bachus, Cong. Rec. at __ (Dec. 7, 2006).
involve these three categories, as more modestly defined, should escape consequences. Examples of such markets include the IEM and proposed markets to predict executive-branch administrative actions, scientific discoveries, and Supreme Court decisions.

It then seems that a substantial number of information markets may be able to escape the effects of this statute. Some, like the IEM, are exempt because they are not really engaged in contests, sporting events, or games subject to chance within the meaning of the statute.68 Others, such as Blogshares and the Foresight Exchange, are not covered because they do not reward participants with “something of value” within the meaning of the statute.69 Obviously regulations and possibility litigation will be necessary to clarify if this is indeed the true meaning of the statute, but that such potential limiting arguments exist should at least offer at least some hope to those who fear that the new law will devastate the development of information markets.

(2) Exemptions, Exemptions

The statute also offers several exemptions that can offer even further protection for prediction markets. Should the previously mentioned arguments fail, prediction

68 The IEM is also exempt because they received a no-action letter from the CFTC to run the market. We discuss the implications of this further in our section on CFTC jurisdiction over prediction markets. See Section III, infra.

69 It is unclear at this point whether the statute will apply to information markets that reward participants not for the result of any one bet ("in the event of a certain outcome," as the statutory language may mean) but rather for predictive success more generally. If so, a number of prediction markets that award prizes for general success, as opposed to payouts for any particular event, may escape the consequences of the law. The results of this interpretation could be significant. Prediction markets potentially affected by this interpretation include the Hollywood Stock Exchange, Innovation Futures, News Futures, and the Political Stock Exchange.
markets, depending on their characteristics, may yet obtain protection under these sorts of exemptions.

For example, the statute exempts from its definition of “bet or wager” any transaction that is “subject to the rules of a registered entity or exempt board of trade under the Commodity Exchange Act.”70 Thus far, the Commodities Future Trading Association has seemed the most aggressive agency in seeking to regulate information markets. This is shown chiefly by the CFTC’s enforcement action against Tradesports, and the CFTC’s issuance of a no-action letter to the IEM.71 To the extent that the CFTC does have jurisdiction over prediction markets—a matter that seems unclear—it would at least excuse prediction markets from the effect of this act.72

Likewise, an exemption exists for participation in any game or contest where participants do not stake or risk anything of value other than “personal efforts of the participants in playing the game or contest or obtaining access to the Internet,”73 or “points or credits that that the sponsor of the game or contest provides to participants free of charge and that can be used or redeemed only for participation in games or contests offered by the sponsor.”74 As discussed above,75 we think this provision is best

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71 See Section III, infra.

72 CFTC jurisdiction might also have other benefits, as Hahn and Tetlock have argued. See Robert Hahn & Paul Tetlock, Short Odds for Ignorance, N.Y. Times, Oct. 9, 2006, at A17. For an encapsulation of the debate, see Section III, infra.


75 See note [ ], supra.
understood as a safe harbor, rather than a carve-out of conduct that would otherwise be illegal, but to the extent that it is not, prediction markets that meet its conditions will be safe from prosecution. Significantly for academic purposes, the results of such markets may be just as accurate, at least according to research that finds that play-money markets perform as well as those with real-money payouts.\textsuperscript{76}

Another intriguing exemption is one that while apparently intended for fantasy football leagues, may apply to many prediction markets as well. The provision excludes participation not just in a fantasy or simulation sports game, but any “educational game or contest” that meets certain conditions.\textsuperscript{77} To the extent that an information market involves predictions on political, economic, and technological events, the activity is arguably such an “educational game or contest.” If so, it would even be able to offer monetary awards to successful participants, though with certain restrictions like not basing the payout on the number of participants or the amount of fees paid by those participants.\textsuperscript{78}

In short, though many prediction market entrepreneurs, participants, and supporters may understandably be concerned about the effect of the new Act, valid reasons exist for hope that information markets may be able to continue to develop without substantial harm. Of course, the legal uncertainty creates its own chilling effects, and whether prediction markets continue to develop will depend partly on what


regulations are passed, what the activities the Department of Justice chooses to prosecute, and how the courts interpret the statutory definitions. But all of these regulatory and statutory restrictions ultimately are subject to constitutional constraints under the First Amendment, and we now turn to identifying some of the expressive elements of prediction markets that, we argue, have First Amendment protection.

II. Expressive Elements of Prediction Markets

We expect most readers will be familiar with general First Amendment principles, and in this section we will not repeat a detailed exposition that is provided elsewhere. Instead, we want to explore how these traditional speech ideas apply in the new context of prediction markets. We start here by identifying the expressive elements present in prediction markets. In addition to the expression of those who participate in the markets, we also posit that the market itself is a speaker.

A. Predictive Speech

Under the First Amendment, so-called “pure speech” receives the greatest constitutional protection, based on the conclusion that “the government may not prohibit the expression of an idea simply because society finds the idea itself offensive or disagreeable.” As a result, regulations that target specific viewpoints or content are constitutionally suspect, warranting strict judicial scrutiny to ensure that the government


80 See U.S. CONST. amend. I (Congress shall make no law “infringing the freedom of speech.”)
restriction on speech serves a compelling state interest and restricts the speech using the least restrictive means. 82

As applied to prediction markets, we begin by considering a type of prediction market that involves perhaps the archetypal form of pure political speech – namely speech related to the outcome of a specific political election. The constitutional protection for such speech becomes more complicated when money is involved, 83 so for the moment, let us envision an information market without financial incentives—something like the IEM, but without the $500 of real money at stake. 84 In this market, individuals would indicate their choice for which candidate will win the next U.S. presidential election, with (non-monetary) awards for successful predictions.

To see the constitutional values at stake in such a market, it is helpful to explore why people might participate. Although individuals might participate for a variety of reasons, in general, the participants probably can be grouped into two types: Those who

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83 The realm of campaign finance demonstrates how political speech and monetary funding interact, not always with perfectly consistent results. Compare Buckley v. Valeo 424 U.S. 1, 23 (1976) (striking down spending caps by advocacy groups) with McConnell v. Federal Election Commission, 540 U.S. 93 (2003) (upholding majority of congressional statute regulating soft-money contributions and electioneering communications). The topic will likely occupy the Supreme Court’s docket for many years to come.

84 Such a market would not be fanciful, given that some research suggests that play money works as well as real money in ensuring accurate predictions. See Emile Servan-Schreiber, Justin Wolfers, David M. Pennock and Brian Galebach, Prediction Markets: Does Money Matter, 14 ELECTRONIC MARKETS 243 (2004).
Some of the partisan participants in the information market might choose a particular candidate to win because the market participant favors the candidate, even if a more objective observer might question the likelihood of the candidates success. Why? Perhaps this simply a natural mental tendency that a candidate you prefer should – and to some people, must – also be popular among the general populace, or at least the portion of the population who participate in a prediction market. Alternatively, the partisan participant may deliberately wish to create an impression that the candidate has popular support to sway other people to join an apparent crowd in supporting a popular candidate. In either of these scenarios, the vote in the information market is necessarily an expression of political opinion. The expression may not accurately predict the result, and its value in the information market may be debatable, but it is undeniably a statement of one’s political viewpoint about which candidate should win the election. In this sense, the virtual ballot in a prediction market has analogies both to polling, and the casting of the physical ballot on Election Day, at least to the extent that both involve an expression of support for one’s desired candidate.

In contrast to this partisan participant, other participants in the prediction market might have nonpartisan motivations. These voters might dispassionately assess a candidate’s likelihood of success and then translate those conclusions into a prediction. This is not speech expressing one’s political preferences, but it is an informed prediction.
about a particular event. And while the First Amendment caselaw more frequently involves individuals trying to express their political desires,\footnote{See, e.g., Texas v. Johnson, 491 U.S. 397, 414 (1989) (protecting flag burning); Tinker v. Des Moines School District, 392 U.S. 503 (1963) (protecting wearing black armbands symbolic expression); Spence v. Washington, 418 U.S. 405 (1974) (reversing conviction for hanging a flag with a peace symbol to protest invasion of Cambodia and the killings at Kent State University).} the fact of speech being more dispassionate (less “partisan”) does not render it less worthy of constitutional protection. Indeed, to the extent that the First Amendment’s utilitarian purposes to find truth are helped more by light than heat, dispassionate speech might be worthy of more protection, not less.\footnote{We do not mean to suggest that partisan speech does not deserve protection. Our the point is merely that the relative dispassionateness of some participants in an information market does not thereby render the market less deserving of First Amendment protection.}

This hypothetical about speech on political elections is one of the easiest areas in which to see the constitutionally protected functions. When one moves from this hypothetical to some of the other subjects traded on prediction markets, speech that in analogous contexts would be constitutionally protected also quickly appears. Consider, for example, the range of topics for trade on www.intrade.com.\footnote{www.intrade.com (last visited on Feb. 5, 2006).} One offered topic was the possibility of an airstrike on Iran, an informed prediction on which would require a participant to evaluate the willingness of Iran to pursue nuclear capabilities despite international opposition, the resolve of the United Nations to use force to stop Iran, and the appetite for the Bush administration for engaging in another conflict in the Middle East despite the problems with the war in Iraq.\footnote{www.intrade.com (last visited on Feb. 5, 2006).} Another topic was the possibility of
Hamas recognition of Israel, a vote on which might entail assessments not just of Hamas’ objections but also of Israeli reactions and the long-term possibilities for a peaceful resolution between Israelis and Palestinians.\textsuperscript{90}

If a citizen were to write a letter to a newspaper expressing an opinion about the likelihood of these events occurring in Iran and Israel, that prediction would clearly be protected under the First Amendment as political speech. A key question of this Article is whether the expression should be any less protected if it is presented not in a newspaper but in an information market.

Information markets frequently include not just political topics, but economic ones as well. At first glance, political speech might seem different from economic topics such as whether the Federal Reserve will raise interest rates or whether the Standard & Poor’s 500 index of stocks of large U.S. companies will rise or fall.\textsuperscript{91} We submit, however, that inherent in such predictions are frequently the sorts of assessments of political leaders that traditionally receive First Amendment protection. For example, setting the federal funds rate involves judgments of the Federal Reserve Board about how best to attempt to manage the economy. If one trusts the governors to respond prudently, one might predict modest increases to combat perceived inflation or modest decreases to stimulate the economy in a perceived recession. Alternatively, if one mistrusts the judgment of the Federal Reserve, one might predict vastly different behavior (such as

\textsuperscript{90} \url{www.intrade.com} (last visited on Feb. 5, 2006).

\textsuperscript{91} Both the Federal Funds rate and the close of the Standard & Poor’s 500 were topics available for prediction on \url{www.intrade.com} on Feb. 5, 2006.
flooding the market with liquidity resulting in a housing bubble and the continued
devaluation of the currency).

Not every topic is political, of course, and economic predictions may also involve
non-political elements (such as statistical data). Yet in general, it still seems that not far
below the surface of economic predictions lies the type of assessments of political leaders
that warrant First Amendment prediction. And, of course, courts have afforded First
Amendment protection even to speech that involves economic rather than political
1984) (“Although the right of association is most commonly conceived of in terms of
political associations, the Supreme Court and other federal courts have recognized that
economic speech and associations are not excluded from the guarantees of the First
Amendment.”) (citing cases).}

Of course, some subjects (such as the amount of snowfall in New York City)\footnote{A subject for prediction on www.intrade.com on Feb. 5, 2006.} might not involve politics or economics at all. And some of these subjects, like
entertainment predictions about a Hollywood movie’s success, may seem far removed
from the matters of democratic self-governance that the First Amendment assists.\footnote{Movie box office receipts are predicted on The Hollywood Stock Exchange, www.hsx.com.}

Nevertheless, the courts have given First Amendment protections to areas far removed
from political speech, including speech that is pornographic\footnote{Miller v. California, 413 U.S. 15 (1973); Reno v. ACLU, 521 U.S. 844 (1997);
expression).} or that involves such
largely non-political activities such as a St. Patrick’s Day parade.\textsuperscript{96} Speech involving art, science, literature, and even lighthearted entertainment has all received First Amendment protection.\textsuperscript{97} Thus, the fact that an information market might involve a prediction about the celebrities instead of presidential elections does not seem to mean that the speech is therefore unprotected. And snowfall in New York? Perhaps no government official would be so foolish to try to control talk about the weather, but we have little doubt that such a ban on predicting snowfall would not pass constitutional muster.\textsuperscript{98}

B. I Speak, We Speak: The Market as Speaker

In the last section, we were primarily concerned with analyzing the expressive interests of those individuals who decided to trade on their knowledge and opinions in a prediction market. In this section, however, we focus on the market itself. We argue that the market is, ultimately, a composite of its traders, and that the aggregate prediction that the market generates also deserves constitutional protection.

Although we do not wish to anthropomorphize an economic construct unduly, in this instance we believe “speaker” accurately describes the prediction market itself. Recall, as discussed above, that prediction markets aggregate large numbers of trades,

\textsuperscript{96} Hurley v. Irish-American Gay, Lesbian and Bisexual Group of Boston, 515 U.S. 557, 560 (1995). The Court found that some expressive elements did exist in the parade, even though it was not primarily about political topics.


\textsuperscript{98} See, e.g., Hill v. Colorado, 530 U.S. 703, 768 (2000) (Kennedy, J., dissenting) (implying that the First Amendment would protect a citizen approaching another citizen to ask about a weather forecast); People v. Hickman, 988 P.2d 628, 642 (Colo. 1999) (stating that “forecasting a change in weather” is protected by the First Amendment).
which are the results of numerous decisions made by individual participants.99
Consequently, the market price and the resulting prediction is a summary, or a snapshot, of the collective knowledge of the market at a particular point in time. The price of the security encodes useful information about individual’s trades, and therefore aggregates their opinions into a number. That number is the prediction about what is going to happen. In doing so, the market articulates a viewpoint and predicts the outcome of a future event.

While prediction markets are relatively new constructs, the idea of mechanical devices or other inanimate objects being able to “speak” is not. There are many situations where meaning is encoded through mechanical devices. For example, a seismometer reads geologic activity and predicts earthquakes, and similar equipment functions to predict the eruption of volcanoes. The First Amendment protects scientific information, regardless of how dry or technical the scientific facts may be,100 and that result should not change merely because the scientific facts happen to register on a machine. That is because an individual scientist could take all the factors into account (as a machine does automatically) and express an opinion about the likelihood of a volcanic eruption. If a scientist did this manually, that opinion would certainly constitute protected expression. If so, can reading off the numbers off a predictive device lack such protection? Certainly our intuition seems to suggest otherwise.

99 See Section IIA, supra.

100 Universal City Studios v. Corley, 273 F.3d 429, 446 (2nd Cir. 2001) (“Even dry information, devoid of advocacy, political relevance, or artistic expression, has been accorded First Amendment protection”).
Similarly, the fact that the market is speaking by making its predictions in the realm of cyberspace also does not change the analysis. In a recent article, Professor David McGowan discusses the similarities and differences between speech in real and virtual worlds, and explains a concept that he terms “social friction.”101 According to McGowan, in cyberspace many of the traditional norms of behavior (for example, only being able to protest in one place at one set time) are different in cyberspace (where one could conceivably register disapproval in a number of different cyber venues almost simultaneously).102 At the same time, McGowan ultimately argues that judges are deciding the cases based on the context of the real world – which he argues, may mean that the distance between the real and virtual worlds will never be able to stray too far apart.103

Courts that have considered the question have determined that computer code, like musical symbols, or works written in a language other than English, do have an expressive interest, despite the fact that they only may be intelligible to a certain subset of the population.104 In CFTC v. Vartuli, the defendants marketed a computer program, Recurrence, that they claimed would automatically allow users to make money from


102 Id. at 1517.

103 Id. at 1598-99.

104 Universal City Studios v. Corley, 273 F.3d 429, 446 (2nd Cir. 2001); see also Junger v. Daley, 209 F.3d 481, 485 (6th Cir. 2000) (“Because computer source code is an expressive mans for the exchange of information and ideas about computer programming, we hold that it is protected by the First Amendment.”)
currency trades. The program would analyze the currency data, and then instruct the user to buy, sell, or hold. Although the court determined that computer code itself could be expressive, in this case the court denied protection to the Recurrence system because the language in the computer program was not to express opinion, but rather was “to induce action without the intercession of the mind or the will of the recipient.”

While the facts in Vartulli were vastly different from the context of prediction markets (as the market is entirely dependent on the independent thoughts of traders), the test articulated in the case makes a good deal of sense.

Ultimately, the court in Vartulli, along with the other courts that have considered the question, seem to be resolving the question of whether computer code is protected by looking at what is being communicated. Seemingly, if the material in question furthers the “pursuit of truth, the accommodation among interests, the achievement of social stability, the exposure and deterrence of abuses of authority, personal autonomy and personality development, or the functioning of a democracy” then it will obtain First Amendment protection. Currently, prediction markets encompass matters that advance some or all of these goals. The fact that the market is speaking in cyberspace hardly changes the analysis.

The fact that the market is acting as a speaker becomes even clearer in the case where a founder might establish a market with a certain political purpose in mind. For


106 Id.

107 Id.
example, the founder of a prediction market might want to call attention to the fact that human rights violations still occur with regular frequency.\textsuperscript{109} Participants in the market could be asked to predict the number of a certain type of human rights violations per country (say, execution of political prisoners), or they might be asked to predict which country would improve its reputation by releasing political prisoners. In this instance the “point” of the market might go beyond the value of the prediction itself. By establishing the market, the founder would call attention to a particular problem in hopes of achieving a particular result. In that sense, the act of establishing and running the market, then, could be the expression of a particular opinion.

Moreover, because the overall market represents the aggregated judgment of the individual speakers, it would seem somewhat perverse if the judgment of the market itself enjoyed fewer constitutional rights than those enjoyed by its component participants. This is particularly true when a significant portion of the value of the information markets results precisely \textit{from} the fact that the market provides an aggregate judgment that is more likely to be accurate than that of some of the individual participants.

But so what? Why should society care about protecting these sorts of predictions? One reason would be that such predictions are consistent with the “truth seeking” function of the First Amendment.\textsuperscript{110} Another good reason is similarly


\textsuperscript{109} For additional information on human rights violations, see \url{www.amnesty.org}, the website for advocacy group Amnesty International.

\textsuperscript{110} See, \textit{e.g.}, Hustler Magazine v. Falwell, 485 U.S. 46, 52 (1988) (describing lack of value of false and defamatory statements because “they interfere with the truth-seeking function of the marketplace of ideas”); \textit{See also} Robert Post, \textit{Reconciling Theory and Doctrine in First Amendment Jurisprudence}, in \textit{ETERNALLY VIGILANT: FREE SPEECH IN
utilitarian: We need to hear honest predictions about what the future holds – even when they tell us what we do not want to hear.

In Homer’s *Iliad*, the princess Cassandra had the power to predict the future, but suffered from an unusual curse: No one accepted her predictions.\(^{111}\) Like Cassandra, information markets have repeatedly been shown to make accurate predictions.\(^{112}\) But as information markets become more widespread and familiar, they may begin to cover subjects that some people might find offensive. As the myth of Cassandra illustrates, not all predictions are welcome. The markets may foretell outcomes that we, as a society, would prefer not to contemplate. Further, certain subject areas may be controversial because they involve a sensitive topic, a topic that has important consequences for a particular group, or because of the seriousness of the rights at stake. Such controversy may be engendered either because of the substance of what the market is predicting about a particular area or the inherent aversion to the commodification of particular topics.\(^{113}\)

Yet, it is these unpopular markets that may be most in need of First Amendment protection.

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\(^{112}\) See Section I, *supra*.

\(^{113}\) *Rethinking Commodification: Cases and Readings in Law and Culture* (Joan C. Williams & Martha M. Ertmann, eds.) (2004). Questions about morals and markets are fascinating and deserve further close study.
As one example, consider the ill-fated Policy Analysis Market (“PAM”) of the Defense Advanced Research Projects Agency (“DARPA”) that addressed terrorism and mid-East policy.\(^{114}\) To put it mildly, this market provoked considerable political controversy.\(^{115}\) Opponents feared that terrorists might “game the market,” either committing violent activities for profit or manipulating the market to hide their unlawful activities.\(^{116}\) Senators Ron Wyden and Bryon Dorgan claimed that PAM was “offensive” and “ridiculous”\(^{117}\) while Senator Tom Daschle criticized PAM because it “could provide an incentive actually to commit terrorism.”\(^{118}\) Under such criticism, the project was terminated.

This market was government-sponsored, and of course, the government has no affirmative obligation to fund it. But the animosity shown against PAM was striking, and

\(^{114}\) In the summer of 2003, DARPA announced a program, FutureMap, which proposed information markets to predict events in the Middle East as well as potential terrorist attacks. You Bet Your Life – Futures Markets Won’t Solve a Real Intelligence Problem, Fin. Times, Aug. 21, 2003, at 10; Tim Harford, All Bets Are Off at the Pentagon, Fin. Times, Sept. 2, 2003, at 14. There were two markets comprising FutureMap: one was to be composed of policy experts and law enforcement officials, cutting across internal government agencies and relying on classified information. See Surowiecki, supra note 19 at 79. The second portion of FutureMap, the Policy Analysis Market (“PAM”), was to be open to the general public. See Robin Hanson, Impolite Innovation: The Technology and Politics of “Terrorism Futures” and other Decision Markets 13 (Nov. 16 2004)


\(^{116}\) See Harford, supra note 114.


\(^{118}\) Harford, supra note 114.
we fear it may have implications for other privately-run prediction markets. Suppose a wholly private organization wanted to run a market on middle-east events and terrorism open to the general public without any type of government funding or support. Would the government likewise attempt to quash it? If so, we would expect such efforts to run into the First Amendment problems discussed above. And beyond the purely legal rights of free expression, such attempts risk depriving citizens and the nation of information it might vitally need.

The analogy to Cassandra is again apt. The Trojans needed to hear that, despite their ostensible victory over the Greeks, the giant horse was not what it appeared to be. Yet they shut their ears to the prophetess, and the result was disaster. Similarly, information markets offer the promise of giving individuals and governments insights into an uncertain future, and it seems fundamentally unwise to reject this sort of knowledge because its creation may spark certain associations with gambling. And it is to those associations—not only with gambling, but also with other regulated subjects such as securities and commodities trading, that we now turn.

III. EXPRESSION THROUGH MARKETS: THE DIFFERENCE FROM OTHER REGULATED ACTIVITIES

In this section, we seek to distinguish prediction markets from other forms of business activity that have traditionally been seen as subject to regulation without particular regard for their expressive qualities. Although on the surface commodities trading, securities trading, and gambling share similarities to the activity that takes place

119 See Homer, supra note 111.
in a prediction market, we contend that information markets have certain unique characteristics that separate them from these other areas. After a careful examination of the characteristics of prediction markets, it becomes evident that they involve expression of opinions in a way that these other types of regulated activities do not. These differences should lead to increased First Amendment protection for information markets beyond that afforded to these other activities.

At the same time, we of necessity acknowledge that there are no clear bright line tests regarding these various forms of regulated activities. If anything, an in-depth analysis indicates the difficulty of attempting clear categorization. Numerous commentators have argued - quite persuasively - that some of these categories blur together at the edges.\textsuperscript{120} To use a common example, stock day-trading – that is, executing a large number of stock trades in a short amount of time based on short-term increases or decreases – falls closer to gambling than to traditional investing.\textsuperscript{121} Despite the somewhat porous boundaries between these different activities, prediction markets have important distinguishing characteristics. First, to a greater extent than gambling, they involve the participant’s expression of their knowledge, skill, and opinion about the likelihood of a particular outcome in the future. Second, prediction markets involve a


\textsuperscript{121} See Hurt, \textit{supra} note 120 at 403.
transcendent expressive purpose – the generating of a conclusion about a future event -
that goes above and beyond the mere results, i.e. the allocative gains or losses that take
place in the market. We begin our examination with a discussion of gambling, as that
seems to be the area that has created the most controversy, especially with the recent
legislation on internet betting.\textsuperscript{122}

A. Gambling

Games of chance, races, and other forms of gambling have existed as recreation
and leisure activities for thousands of years.\textsuperscript{123} The law has tended to distinguish
gambling from other forms of activity, such as investing in the stock market, based on the
idea that gambling is a form of entertainment, perhaps even a vice, and that gambling
involves elements of luck, randomness, or chance.\textsuperscript{124} As other commentators have
pointed out, however, some of these distinctions between gambling and investing are
artificial, socially constructed, and largely based on socioeconomic class.\textsuperscript{125} While the

\textsuperscript{122} See Section II, supra.

\textsuperscript{123} DAVID WEINSTEIN & LILLIAN DEITCH, THE IMPACT OF LEGALIZED GAMBLING 7-8
(1974) (noting that lotteries existed in ancient Rome, and that the Virginia Company used
a lottery in 1612 to finance the Jamestown settlement).

\textsuperscript{124} Finster v. Keller, 96 Cal Reptr. 241, 246 (Cal. Ct. App. 1971) (“It is the character
of the game rather than a particular player's skill or lack of it that determines whether the
game is one of chance or skill. The test is not whether the game contains an element of
chance or an element of skill, but which of them is the dominating factor in determining
the result of the game.”).

\textsuperscript{125} See Hurt, supra note 120 at 403 (“Gambling threatens social order; in the throw of
the dice, a commoner can become a wealthy citizen, a slave a freedman. Gambling is
anathema to the Puritan work ethic, but it also violates unspoken values of knowing one’s
place and living within one’s class. In addition, historically, financial speculation was
engaged in by the elite; therefore, it was respectable. Gaming speculation, especially as
engaged in by the poorer classes, was frowned upon and at times prohibited.”) (internal
citations omitted).
lower classes engage in (immoral) gambling, the upper classes engage in similar activities, but these activities are considered productive and denominated “investments.”

Historically, gambling in the United States has either been outlawed completely or highly regulated, in part because gambling has traditionally been associated with vice, moral weakness, and poverty. Organized crime rings have long used gambling, bookmaking, and related activities as a way to launder money from other illegal activities, such as prostitution, loan sharking, and drug sales. In addition, some individuals with susceptible personalities can become addicted to gambling, leading to emotional distress and, in extreme cases, financial ruin. When gambling occurs in the form of state-sponsored lotteries, it has been criticized as imposing a regressive tax,

126 Id.

127 Greater New Orleans Broadcasting Ass’n v. U.S, 527 U.S. 173, 176 (1999) (“Through most of the 19th and the first half of the 20th centuries, Congress adhered to a policy that not only discouraged the operation of lotteries and similar schemes, but forbade the dissemination of information concerning such enterprises by use of the mails, even when the lottery in question was chartered by a state legislature.”)

128 Tom Troncone, Gambling A Very Big Winner for the Mob; Sports Betting Finances Everything Else it Does, THE RECORD, Feb. 19, 2006, at A18 (sidebar) (noting the link between the Lucchese family and illegal gambling in Atlantic City); William K. Rashbaum, Kerik Described as Close to Deal on a Guilty Plea, N.Y. TIMES, June 29, 2006, at 1 (describing continuing efforts to keep businesses with organized crime ties out of Atlantic City).

129 AMERICAN PSYCHIATRIC ASSOCIATION, Diagnostic and Statistical Manual of Mental Disorders 671-74 (4th ed., Text Revision, American Psychiatric Association 2000) (1952) (noting that lifetime prevalence of Pathological Gambling in adults ranges from 0.4% to 3.4% in adults and 2.8% to 8% in adolescents and college students). Gambler’s Anonymous defines a compulsive gambler as “a person whose gambling has caused growing and continuing problems in any department of his or her life.” See http://www.gamblersanonymous.org/qna.html (last visited February 2, 2007).
disproportionately taking money from the poor and uneducated to subsidize the public fisc. For all these reasons, gambling has historically been seen as an activity requiring a high level of policing and regulation.

Despite these deep-rooted views, restrictions on gambling have eased in recent years. Currently, gambling law in the United States is a patchwork of regulation. In some states, gambling is legal, in others it is outlawed, and in still others, there is a combination, with only some forms of gambling allowed, and some forbidden. Within this patchwork, however, gambling has made recent and dramatic inroads. Native American tribes have been able to support lagging local economies through revenues generated from casinos located on reservations. State governments have themselves

130 See Todd A. Wyett, State Lotteries: Regressive Taxes in Disguise, 44 Tax Law. 867, 867, 875-76 (1991) (reprinting economic studies and arguing that “state-run lotteries are the most regressive means of taxation in existence in the United States today.”).


132 Greater New Orleans Broadcasting Ass’n v. U.S, 527 U.S. 173, 187 (1999) (“Whatever its character in 1934 when . . . [the ban on casino advertising] . . . was adopted, the federal policy of discouraging gambling in general, and casino gambling in particular, is now decidedly equivocal.”)


134 See, e.g. http://www.gambling-law-us.com/State-Law-Summary/ (showing the differences between judicial tests, whether internet gambling is expressly forbidden, and whether violations are misdemeanors or felonies).

moved toward a system where education and other vital services are often supported through state-sponsored lotteries. These regulatory inconsistencies point, perhaps, to deeply conflicted cultural views toward gambling.

There have been several constitutional challenges to the regulation of advertising for gambling and lotteries, with varying results. In *Posadas de Puerto Rico Associates v. Tourism Co of P.R.*, the Supreme Court considered a law that allowed casinos in Puerto Rico to advertise to tourists, while banning advertisements aimed at residents of Puerto Rico. Applying the *Central Hudson* test, the court upheld the ban, reasoning that the legislation advanced a state interest in promoting tourism and simultaneously limiting gambling among residents, especially given the link between gambling and crime. In *United States v. Edge Broadcasting Co.*, the Supreme Court considered the constitutionality of a prohibition of advertising for the Virginia lottery on the radio in North Carolina, a state that had no lottery. The Supreme Court again upheld the

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136 Rychlak, *supra* note 131 at 11, n. 2 (performing fifty-state survey and concluding that as of 1992 thirty-three states sponsored a lottery). It could be argued that the prevalence of state-sponsored lotteries undercut any notion of the state having a regulatory interest in any form of gambling, given that the state is promoting this type of activity, albeit in a monopolistic form in order to raise revenue. On the other hand, critics of the lottery have argued that this is one of the worst ways for states to raise revenue, as it preys on vulnerable populations and exacerbates the effect of income inequality. See, e.g. Wyett, *supra* note 130 at 875 (advocating other methods of raising revenue); Rychlak, *supra* note 131 at 80-81 (advocating retaining the lottery, but restricting its advertising).


138 *Id.* at 341-42.

advertising ban under the *Central Hudson* test, reasoning that otherwise states would have no ability to shield citizens from lottery advertisements.\(^{140}\) However, in *Greater New Orleans Broadcasting Association v. United States*,\(^{141}\) the court struck down an advertising ban that prevented Louisiana casinos from advertising to Louisiana residents.\(^{142}\) After describing the changing regulatory landscape, the Supreme Court concluded that there was no principled distinction that would allow for advertisement of tribal gaming in Louisiana while simultaneously banning advertisement for non-tribal casinos.\(^{143}\)

All of these constitutional challenges dealing with gambling and commercial speech arose in the same context - the First Amendment right to advertise casinos or other gambling. None of these lawsuits challenged the government’s right to regulate gambling itself. In fact, the decisions rest on the conclusion that the government could decide to ban gambling activity altogether, and included in that is the lesser ability to regulate advertising.\(^{144}\) First Amendment jurisprudence traditionally holds that ordinary business activity (absent an expressive element), and gambling in particular because of its

\(^{140}\) *Id.* at 435-436.


\(^{142}\) *Id.* at 191.

\(^{143}\) *Id.* (stating that the government “presents no convincing reason for pegging its speech ban to the identity of the owners or operators of the advertised casinos. The Government cites revenue needs of States and tribes that conduct casino gambling, and notes that net revenues generated by the tribal casinos are dedicated to the welfare of the tribes and their members. . . . Yet the Government admits that tribal casinos offer precisely the same types of gambling as private casinos.”) (internal citations omitted).

\(^{144}\) *Edge*, 509 U.S. at 427.
association with “vice activity,” is not entitled to First Amendment protection.\textsuperscript{145} To some degree, this distinction makes some sense, as the act of putting money down on the outcome of a random element does not involve the expression of any particular thought for idea. If, for example, the outcome of a spin of a roulette wheel lands on a particular number, the choice of a number does involve expression. The same would be true of other games of pure chance – the outcome of the roll of the dice, or the flip of a card. The pull on the handle of a slot machine does not express anything other than a willingness to try one’s luck with a one-armed-bandit.

Certain elements of recreational gambling, however, involve more than just pure chance. As other commentators have remarked, certain card games rely on a mix of chance and skill.\textsuperscript{146} So, for example, a poker player will have to determine, based on an assessment of the risks and reward involved, whether they should continue to bet or fold their hand.\textsuperscript{147} Other forms of recreational gambling, such as sports betting or horse racing, involve an element of chance or luck, and at the same time, for a successful outcome, require an element of knowledge. Is one team particularly good this year?\textsuperscript{148}

\textsuperscript{145} \textit{Id.}

\textsuperscript{146} \textsc{Mike Caro, Caro’s Fundamental Secrets of Winning Poker} 108-20 (2002).

\textsuperscript{147} \textit{Id}; see also Steven Lubet, \textit{Lawyers’ Poker}, 57 U. MIAMI L. REV. 283, 286-87 (1993) (describing skills involved in poker game and analogizing them to skills used in litigation).

\textsuperscript{148} A recent piece has examined sports betting, contending that there is no difference between such sports betting and online day trading. See Christopher T. Pickens, \textit{Note: Of Bookies and Brokers: Are Sports Futures Gambling or Investing, and Does it Even Matter?}, 14 GEO. MASON L. REV. 227 (2006). The author conflates prediction markets and sports betting. Further, the prediction markets analysis seems to almost be tacked on to the rest of the piece, for the author’s main argument is that the government should legalize sports betting. Pickens justifies this argument by disputing that there is any distinction between investing and gambling. However, part of his argument rests on two
What is a horse’s – literal – track record? 149 All of this information is potentially available to gamblers and they may take advantage of this knowledge to increase their chances of winning.

Even in these instances, however, it becomes apparent that gamblers do not have a particular expressive interest in whether a particular card is turned over or in whether their horse wins. (There may be some affection for, or affiliation with, a home team, but we suspect that this expressive interest typically is, at most, of secondary importance to the gambler). Furthermore, the subject of the betting – who wins the horserace – is not of particular societal interest other than to those individuals who happen to have money at stake. 150 A significant percentage of prediction markets, on the other hand, involve larger-scale concerns about politics, whether certain scientific events will occur, and other questions that directly impact on core speech values.

We also wish to note that many of the concerns correlated with gambling do not exist with prediction markets. There is no indication, at present, that prediction markets have any link to organized crime, or have any affiliation with the vice-related activities that criminals engage in. Finally, there is no proof that participation in prediction markets is any more addicting than investing in the traditional capital markets. Accurate extremely questionable assumptions, those being that betting functions as a hedging device and that it adds social value.


150 Of course, there are exceptions to this too. See LAURA HILLENBRAND, SEABISCUIT: AN AMERICAN LEGEND (2001) (detailing inspirational story of popular racing horse).
predictions of future events are unlikely to lead to individuals into moral decay. With these thoughts in mind, we turn to another area, namely securities trading, that bears similarities to the activity that occurs in prediction markets.

B. Securities Trading

During the nineteenth century, the capital markets became the driving force behind the industrial revolution, the expansion of the railroads, and the increasing mechanization of the production of goods.151 The modern view of securities regulation in the United States had as its genesis in the Great Depression of the 1930s.152 After the stock market crash of 1929, Congress took action to protect the integrity of the capital markets, culminating in the 1933 and 1934 Securities and Exchange Acts.153 The overwhelming thrust of these acts was on the twin goals of disclosure and transparency, so that investors would be able to make informed choices regarding allocation of resources.154 Through initial public offerings, issuers receive money that may be needed


152 Id.; SEC v. Capital Gains Research Bureau, Inc., 375 U.S. 180, 186 (1963) (describing the securities laws as “designed to eliminate certain abuses in the securities industry, abuses which were found to have contributed to the stock market crash of 1929 and the depression of the 1930’s.”).

153 Joel Seligman, No One Can Serve Two Masters: Corporate and Securities Law After Enron, 80 WASH. U. L. Q. 449, 450 (2002) (“[T]he primary policy of the federal securities laws involves the remediation of information asymmetries, that is, equalization of the information available to outside investors and insiders”).

154 Id.
to expand, and investors are encouraged to put their money in the market through the ease of entry and exit available through the liquidity that the secondary trading market offers.\textsuperscript{155}

The traditional wisdom has generally been that securities may be regulated just as any other business activity is regulated, and that free speech arguments are inapplicable.\textsuperscript{156} Several commentators have either explored or questioned this assumption,\textsuperscript{157} but these types of arguments have had only limited success, and there are valid reasons for this to be the case.\textsuperscript{158} As described above, the system of securities

\textsuperscript{155} Id.

\textsuperscript{156} Aleta Estreicher, \textit{Securities Regulation and the First Amendment}, 24 GA. L. REV. 223, 223 (1990) (“The received wisdom for fifty years has been that the first amendment is inapplicable to speech relating to the operation of securities markets. The assumption that speech by actors on the securities stage is simply another aspect of regulable business activity pervades the federal system of securities regulation[.]”).


\textsuperscript{158} See Michael R. Siebecker, \textit{Corporate Speech, Securities Regulation, and an Institutional Approach to the First Amendment}, 48 WM. & MARY L. REV. 613 (2006) (arguing that Supreme Court’s approach to commercial speech and to corporate disclosures are headed for a clash, but may be reconciled through an institutional approach, which would still allow for a robust system of corporate disclosure).
regulation is predicated upon the issuer’s disclosure of accurate information, especially because stocks themselves do not have an inherent fixed value. The First Amendment concerns vis-à-vis securities law are broadly clustered in four areas: regulation of the provision of financial advice; the quiet period and other speech restrictions surrounding the initial registration of securities; mandatory disclosure, and rules regulating proxies.

Perhaps the most contentious clash of securities law and First Amendment to date has been in the context of the provision of financial advice. In SEC v. Lowe, the petitioner, Lowe, was a financial advisor who was convicted of stealing from a bank, misappropriating funds from a client, and other equally nefarious activities. After the SEC barred Lowe from providing clients with investment advice, he set up a newsletter called that provided financial news and tracked certain stocks. Lowe’s newsletter also included a “hotline” readers could call to request more information.

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159 See Seligman, supra note 151.


161 See, e.g. 15 U.S.C. § 77e (2006) (preventing “gun jumping,” i.e. advertising before the registration statement has been approved); 17 C.F.R. § 240.10b-5 (2006) (famous Rule 10b-5, which broadly prevents fraud in the sale of securities).


165 Id. at 184-85.

166 Id.
SEC sought an injunction to prevent Lowe from participating in any further investment advisory publications. The case turned on the question of whether Lowe was providing individualized investment advice (permissible for the SEC to regulate), or whether he was writing more broadly about finance (which would fall into an exemption in the statute). The Supreme Court read the newsletter as a more general publication about finance, construed it within the exemption, and therefore resolved the issue without reaching the First Amendment issues. However, as the concurrence rightly pointed out, the statutory result seemed to be compelled by constitutional considerations.

Although the Supreme Court’s decision in Lowe precipitated a good deal of academic discussion, the decision failed to signal any significant shift with regard to the other areas that had been identified as potentially conflicting with the First Amendment, viz registration, disclosure, and proxy statements. Perhaps in part that is because these other areas are fundamentally concerned with protecting investors from fraud, and fraudulent speech does not receive protection under the First Amendment. Indeed, speech intended to defraud or mislead seems to run counter to the fundamental truth-seeking function of the First Amendment. Further, while it is relatively easy to

167 Id.
168 Id. at 209-210.
169 Id. at 209-211
170 Id. at 236 (White, J., concurring).
171 See Estreicher, supra note 156; Ribstein, supra note 157.
criticize the existing structure of securities regulation in terms of pointing out its conflicts with the First Amendment, it is difficult to offer a less restrictive alternative that would still protect investors. Any effort to regulate the actual value and/or content of the security - an option that was debated during the New Deal period, and rejected173 – would seem to be more invasive to business - in many ways – than the current regulatory regime.

In any event, prediction markets and the securities markets function differently, and therefore the type of regulation applied to prediction markets would need to be tailored accordingly. The focus of traditional public stock markets is the rapid accumulation of capital, along with the accompanying liquidity and ease of trading available to investors. Although the price-discovery function certainly exists in the capital markets – revealing whether some companies, or indeed, entire technologies or industries – are on the rise or in decline, the fact is that these information discovery functions are secondary to any sort of predictive or expressive capacity. With prediction markets, there is no underlying investment in a company or any residual claim to a company’s earnings or assets.

Prediction markets exist to collect and aggregate information that individuals have, and so the periodic disclosures mandated by the 1934 Act174 would be largely superfluous. The amounts of money involved are tiny, compared with investments in the traditional stock market. Although many of the same issues with insider trading might be

173 See Seligman, supra note 151.

of concern in information markets, there are certain parties that could be barred from participation and other ways to prevent market manipulation.\textsuperscript{175} Because these risks can be countered and controlled for in a properly designed prediction market, the worries that have led to extensive SEC oversight in the context of the do not seem applicable to prediction markets.

A final, but important distinction, is that most investors in the securities market buy stock to enrich themselves, not to express any particular viewpoint or make any sort of statement. Of course, just as with sports betting, there may be some sense of loyalty or support in an investor’s choice of one stock over another. An investor might make the choice to support a business because is located in a particular region of the country, because a particular firm evidences good management or employment practices, or because that firm otherwise engages in socially responsible choices.\textsuperscript{176} Yet seemingly the vast majority of investors are in the market because they wish to increase the long-term value of their holdings and make money, not to express themselves.

All of these differences, and most notably the expressive element that exists with prediction markets, make the existing SEC framework an awkward fit for prediction markets. Moving from this discussion of securities regulation, we turn to yet another

\textsuperscript{175} See Cherry & Rogers, \textit{Tiresias and the Justices}, supra note 45 at 1164-67 (describing methods of prediction market design that could reduce the potential for insider trading and market manipulation).

regulatory framework that might lend useful insights, that which governs commodities and futures trading.

C. Commodities Trading

Before wading into the academic argument over the propriety of regulating prediction markets through the Commodities Futures Trading Commission (CFTC), we first provide a brief overview of what commodities are, the purpose of commodities trading, how commodities trading has historically been regulated, and how the CFTC has recently reached out to regulate prediction markets.

Commodities and futures trading primarily exists for the purpose of hedging risks. The clearest and easiest example would be a futures contract for wheat. A wheat farmer would be concerned if he or she thought that the price of wheat would decline in the next year. On the other hand, a cereal-making company would be worried if they thought the price of wheat would increase in the next year. Commodities markets would allow either the farmer or the cereal maker to “lock in” a certain price at a future date. Through such “lock-ins,” farmers and cereal makers can protect themselves from market declines or increases. Derivatives are a general term for investments that are often grouped with commodities and futures. In a contract for a derivative, the price depends on the action of another financial instrument.

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177 The example is based on one provided in Hazen, supra note 120, at 378.

178 Id.

Beginning in the late 1800s and early 1900s, states began forbidding futures trading conducted in storefronts commonly known as “bucketshops.” As noted by other commentators, the trading that occurred in these bucketshops often resembled gambling, as do many modern-day commodities trades. The modern regulatory approach that has largely been adopted has been the channeling of trading through exchanges approved by the CFTC, the administrative agency charged with oversight of commodities trading. In 2000, Congress passed a bill that effectively deregulated many areas of commodities trading. Another significant event in the industry occurred at the end of 2006 when the two leading commodities trading floors, the Chicago Mercantile Exchange and the Chicago Board of Trade merged, turning the city of Chicago into a clearinghouse for commodities and futures transactions.

In terms of the interaction of the commodities laws and prediction markets, in 2005, in an event significant for a number of reasons, the CFTC asserted jurisdiction over


181 See Hurt, supra note 120 at 396.


184 David Roeder, A Frenzy for Futures, Chi. Sun-Times, Jan. 1, 2007, at 43 (“In 2006, the Merc and the Board of Trade shook hands on a merger they hope to complete by the middle of this year. The $8 billion deal, which longtime Merc leader Leo Melamed called a “Don Quixote impossible dream,” was made possible by the soaring stock prices of both markets' parent companies.”).
a prediction market. On October 4, 2005, the CFTC assessed a penalty against Tradesports, an Irish company that runs both prediction markets and sports betting, asserting that Tradesports was engaged in unauthorized commodities trading. In response to the CFTC’s action, Tradesports delisted the offending markets that the CFTC identified - Gold Futures, Daily Crude, and U.S. Dollars versus Yen - and settled the action for $150,000 in civil monetary penalties.

At the same time, the CFTC’s pronouncement is also significant for what it did not do. The Tradesports markets on other subjects – the political, sports, and current events markets - continued trading without agency interference. From the markets that the CFTC selected, one could logically make the argument that the CFTC was only taking action against the markets that either duplicated commodities trading or most resembled such trading. The other markets were not tied to the delivery or production or cost of physical goods or objects, but rather, were based on knowledge and information about politics or other newsworthy areas.

Meanwhile, among the commentators who have written about prediction markets and how they might be regulated, there is substantial disagreement about what role the

185 http://www.tradesports.com. The United Kingdom and Ireland do not place restrictions on gambling and wagering.


187 CFTC Press Release, supra note 186.

188 Id.
CFTC should play. Professor Tom Bell, a long-time proponent of prediction markets, suggests that no regulation is currently needed, that exemptions that take prediction markets out of the jurisdiction of the CFTC, and suggests that existing common law tort and contract remedies may suffice to protect traders.\textsuperscript{189} Hahn and Tetlock, of the American Enterprise Institute, on the other hand, suggest that CFTC regulation would actually bring more stability and certainty to prediction markets, because then, at the very least, these markets would not be banned as illegal gambling or subject to criminal sanctions. Architzel, a long-time lawyer for the CFTC, also suggests that the CFTC should have jurisdiction over information markets, again for some of the same reasons of regulatory certainty.\textsuperscript{190}

There is a certain pragmatism to Hahn and Tetlock and Architzel’s arguments in favor of CFTC regulation. Compared to either the SEC or gambling enforcers, the CFTC would certainly be the least intrusive in terms of regulation. To some degree, it is a potentially extreme position – and an isolating one at that – to assume that all market regulation is harmful, especially when the alternative might be a complete ban based on (superficial, yet potentially problematic from a regulatory perspective) similarities between prediction markets and internet gambling.

Of course, any proposed regulation must be approached with thought and care. At the present time, prediction markets are still in an embryonic stage, and the implications of the technology, as well as the best way it should be regulated, have not

\textsuperscript{189} See Bell, Promoting the Progress, \textit{supra} note 14 at 67-77 (discussing exemptions).

\textsuperscript{190} Architzel, \textit{supra} note 14 at 50.
been fully evaluated. There is enough of a surface similarity to futures contracts that prediction markets would fit within the CFTC’s bailiwick, at least more so than the other regulatory regimes discussed.

At the same time, we would argue, that if the CFTC is to regulate, such regulation must take into account the unique expressive elements of prediction markets, which differentiate them from commodities trading. Those trading in the commodities markets are doing so in order to hedge risk and lower financial exposure and risk, not to express any particular opinion on science, politics, world events or other matters of public concern. In other words, trading on ideas is not the same as trading on bushels of wheat, the movement of currency prices, or other fungible goods. This is a distinction with a difference that should be reflected in any regulatory structure that might be applied to prediction markets.

IV. Current First Amendment Models: An Inapt Fit

If regulatory areas such as gambling, securities, and commodities, do not apply neatly to prediction markets, in part because of the expressive qualities of prediction markets, what First Amendment tests might be applicable? In this Section, we analyze the tests applied to expressive conduct and commercial speech to see how they might apply to prediction markets. Yet we tend to think that neither seem a particularly good match for the reasons discussed below.

191 In a future article we intend to discuss a comprehensive scheme for the regulation of information markets, one that will protect the development of this emerging field and at the same time further investor confidence. At this time, however, a full discussion of these issues is beyond the scope of this Article.
A. Expressive Conduct

The political topics at issue in prediction markets are not presented in traditional forums for political debates such as university classrooms or newspaper editorial pages. Instead, they take typically occur on a website, and sometimes involve tradable securities with monetary rewards. Does this change the constitutional result?

The Supreme Court held in *United States v. O’Brien* that “when "speech" and "nonspeech" elements are combined in the same course of conduct, a sufficiently important governmental interest in regulating the nonspeech element can justify incidental limitations on First Amendment freedoms.” 192 Such speech, called “expressive conduct,” receives a balancing test more tolerant of government regulation. 193 The *O’Brien* test holds that for regulation of expressive conduct, “[A] government regulation is sufficiently justified if it is within the constitutional power of the Government; if it furthers an important or substantial governmental interest; if the governmental interest is unrelated to the suppression of free expression; and if the incidental restriction on alleged First Amendment freedoms is no greater than is essential to the furtherance of that interest.” 194 This test is typically applied in contexts that are “content neutral,” meaning that the speech restrictions are justified without reference to the content of the regulated speech. 195


193 See Johnson, 491 U.S. at 406 (“The government generally has a freer hand in restricting expressive conduct than it has in restricting the written or spoken word.”).


An initial question is if regulation of prediction markets would be “content neutral.” It would depend on the nature of the regulation, of course. A regulation that applied equally to all subjects on a prediction market – political and nonpolitical alike – certainly would. An example might be a legal restriction against fraud, requiring full disclosure of the terms of the contract, and requiring all bidders to honor their contracts. A regulation that restricted only certain topics, however, seems more likely to be content based and thus subject to strict scrutiny. One example might be a restriction that attempted to prevent people from predicting the outcome of U.S. presidential elections, but allowed such predictions for congressional races, local elections, or elections in foreign countries. More broadly, a ban on predictions on any forms of elections – while allowing contracts on other political events, such as the success of a Supreme Court nomination – also begins to seem content-based. And perhaps more broadly, laws that attempt to carve out entire areas of thought as impermissible for prediction markets seem to have elements of being content-based.

Assuming regulation of prediction markets is deemed not to be content based, how might the O’Brien test apply? It obviously depends on the exact regulation at issue, but it still seems possible to begin to discuss the types of regulations that would pass muster, as well as the kind that might not.

First, under O’Brien, the regulation must involve “a sufficiently important governmental interest” in regulating “the nonspeech element” of the communication. Here, the nonspeech element of an information market seems not to be (1) the actual choice of topics, which involves judgment about which topics are significant and worthy

of discussion, (2) an individual’s vote on any particular topic, which is close to the classic political speech, as discussed previously, or (3) the aggregated prediction of the participants in the prediction market, which represents a collective judgment worthy at least of the same degree of political protection as an individual’s prediction.\textsuperscript{197} Rather, nonspeech elements would include the mechanics of voting in a prediction market, and particularly whether money changes hands. Although some might note that donating money can be a form of expression,\textsuperscript{198} traditional First Amendment doctrine draws a distinction between expression and commercial activities and allows greater regulation of commercial activities. We expect this distinction ultimately may also appear in the regulation of information markets. Thus, the more likely candidates for regulation are the prediction markets that entail monetary stakes.

In regulating nonspeech activities, the government under \textit{O’Brien} must have a “sufficiently compelling governmental interest.” This is likely to be a fact specific inquiry, depending upon the nature of the asserted government interest. Activities such as preventing fraud, requiring the enforcement of contracts, preventing crime,\textsuperscript{199}

\textsuperscript{197} To the extent that the collective judgment of the information market is more likely to be correct (as empirically appears to be true on many occasions), the utilitarian aims of the First Amendment in discovering truth would be served by providing even greater protection to the collective judgment than to the individual predictions. As a practical matter, the collective expression derives from the individual predictions, and so there is a need to protect the individual expressions as well, but it seems worth noting that under some policy rationales, the collective judgment represented in an information market seems to deserve heightened protection because of its increased likelihood of promoting the discovery of truth that the First Amendment at least partially is designed to achieve.


\textsuperscript{199} As a matter of public policy, life insurance contracts require a degree of closeness to the insured individual to reduce the incentive for someone to take out life insurance on
protecting national security, and avoiding the subversion of other government activities might all qualify, depending upon the details of the situation. In other situations, the government interest seems more controversial, as with attempts to prevent citizens from criticizing government policy\(^{200}\) or to promote certain forms of moral behavior.\(^{201}\)

Although courts may be more likely to uphold regulation of prediction markets in areas where money changes hands, it seems worthwhile to contemplate why money should matter so much. In other areas, at least, the presence of money does not seem to be of great constitutional significance. For example, newspapers sell subscriptions, they hire people to solicit and edit commentary, and many pay a nominal amount to op/ed contributors. None of this commercial activity places the commentary piece into the realm of \textit{O’Brien}’s level of intermediate scrutiny.\(^{202}\) Yet the incentive structure in a prediction market may do even better at achieving First Amendment goals than the payment for an op/ed. The reason is that in contrast with the op/ed, the payout for the opinion in a prediction market is not guaranteed. Rather, the speaker receives money only if his or her prediction is correct. Moreover, at least in some prediction markets, the speaker profits to the extent that he or she is willing to invest money behind the


prediction, so that small monetary investments--perhaps reflecting uncertainty about a prediction--receive small rewards, whereas greater monetary investments, perhaps indicating a more confidence, receive a greater reward if correct. In such cases where the payout is directly linked to predictive accuracy, such a system seems more likely to fulfill the truth-seeking function of the First Amendment. Thus, under a utilitarian analysis of the First Amendment would merit at least as much (and perhaps even more) protection as a newspaper op/ed page. If finding truth is what matters, why should our regulatory system not encourage information markets to reward those most adept at predicting the truth about our future?

B. Commercial Speech

According to the Supreme Court, “commercial speech” is expression related solely to the economic interests of the speaker and its audience. To determine if commercial speech is constitutionally protected, the Supreme Court has adopted the so-called Central Hudson test that requires (1) that the commercial speech must concern lawful activity and not be misleading; (2) that the asserted governmental interest is substantial; (3) that the regulation directly advances the governmental interest asserted; and (4) that the regulation is not more extensive than is necessary to serve that interest. In many of the Supreme Court cases, this definition of commercial speech, perhaps predictably, has been applied to commercial advertising.

204 Id. at 566.
Could the Court’s definition of commercial speech also apply to prediction markets? Advertising to promote a prediction market might seem to qualify, as it would solicit individuals to engage in an activity for their profit and the profit of the market organizers. But the actual votes in a prediction market frequently seem to involve expressions that are not solely related to one’s economic gain. This is particularly true in the case of participants who consciously vote in the market to support their chosen candidates, even if such votes are not likely to result in monetary gain.

The fact that one has a financial stake on the result of that prediction does not seem to mean that the speech is solely related to one’s financial gain, as the *Central Hudson* test seems to envision. Rather, the speech is a sort of hybrid, part political and part commercial, and it seems unclear at best if the *Central Hudson* test is truly applicable. Perhaps a good analogy for the prediction market participant is to a newspaper columnist. The columnist engages in pure political speech by writing a column yet simultaneously hopes to win a public following by making accurate political assessments and thus, presumably, eventually make additional money. Such newspaper columns—and, we think, prediction markets as well—seem far closer to the pure political speech than to the advertising that frequently constitutes the commercial speech cases before the Supreme Court.206

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206 Nan Levinson, *Outspoken: Free Speech Stories* 4 (2003) ("Because the law has been defined in response to specific cases, our understanding of free speech is haphazard and partial – extensive on government censorship but sparse on commercial speech, for instance."); See also Robert Post, *Reconciling Theory and Doctrine in First*
Nevertheless, if the Central Hudson test were to apply to a prediction market, what would be the result? On some level, this question is impossible to answer in the abstract because the results will depend upon the specific structure of the information market at issue and the asserted government interest in regulation. Yet despite this limitation, it would seem possible to make some general comments about how the test might apply.

First, the Central Hudson analysis begins by requiring that the commercial speech “concern lawful activity and not be misleading.” In the traditional commercial speech doctrine, this may seem fairly straightforward. The state is free to prohibit advertisements for cocaine, for example, because it is an illegal drug, just as it is free to prohibit deceptive advertising practices such as “bait and switch” or false claims that a new drug will simultaneously cure cancer, reduce weight, and improve one’s sex life. Notably, these restrictions involve commercial transactions (such as the purchase of a drug) with at least some distance from the speech act, as opposed to the purchase of a newspaper or an advertisement.

In contrast, the act of participating in a prediction market has more elements of expression. Consider, for example, a prediction market devoted to predicting the street price of marijuana, both now and in the future. On one level, this market would

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Amendment Jurisprudence, in Eternally Vigilant: Free Speech in the Modern Era (Lee C. Bollinger & Geoffrey R. Stone, eds) 153 (2002) (“First Amendment doctrine veers between theory and the exigencies of specific cases. . . . Doctrine becomes confused when the requirements of theory make little sense in the actual circumstances of concrete cases, or when doctrine is required to articulate the implications of inconsistent theories. First Amendment doctrine has unfortunately suffered from both these difficulties.”)

207 Central Hudson, at 566.
undeniably concern unlawful activity, and thus arguably fail the first prong of the Central Hudson test, yet it simultaneously would be predicting the efficacy of government policy because effective drug-enforcement efforts tend to raise the street price of illegal drugs. Could such a prediction market be outlawed consistent with the First Amendment? Certainly a general prediction – “I think the street price of marijuana will increase ten percent in the coming year” – would seem constitutionally protected, and we remain skeptical that the aggregation of this prediction by a prediction market renders it less deserving of constitutional protection. If nothing else, we think the hypothetical shows the difficulty of mechanically trying to apply the Central Hudson test to prediction markets.

In any event, the “misleading” part of the first prong at least seems easier to apply, at least if a situation arose where a topic on a prediction market was somehow misleading enough to constitute a type of consumer fraud. One difficulty, of course, is that in most cases, a topic for prediction that is vague or unclear enough to give rise to complaints would be so unclear on its face that participants would seem unlikely to place money on an issue that they did not comprehend. A more realistic possibility for regulation might be a prediction market that misled consumers by manipulating the results or the contract, failing to disclose the fee system in advance, or otherwise failing to disclose material information. A government would be able to prohibit such activities (either under Congress’ commerce-clause authority or a state’s police powers to enact consumer-protection statutes), and the First Amendment should pose no bar to such regulatory enforcement.
Second, the *Central Hudson* test requires that the asserted government interest in regulation must be “substantial.” In the context of prediction markets, what might qualify as substantial government interests? The most obvious possibility are the types of consumer-protection statutes mention above; similar federal consumer-protection restrictions on speech or data gathering have already occurred on topics ranging from enforcement actions by the Federal Trade Commission to the Do Not Call List restricting telemarketers to the mandatory disclosures on drug and food packaging.\(^\text{208}\)

Beyond this, the possibilities for achieving a “substantial” government interest appear murkier. Would saving the government from embarrassment qualify, if a prediction market gave predictions that undercut government statements? Intuitively, we think not, and a substantial body of Supreme Court precedent prohibiting viewpoint-based discrimination such as a ban on flag burning would seem to protect unfavorable predictions by an information market. To establish a substantial government interest, some real negative externality, not simply a dislike of the prediction, will probably be necessary.

Third, the *Central Hudson* test requires that the regulation must directly advance the governmental interest asserted.\(^\text{209}\) Here, again, the outcome will be fact-specific: How closely does the regulation, as applied to a prediction market, advance the government interest? In this context, perhaps the most interesting general observation is the extent to which governmental interests developed from different areas may not easily apply to the new field of prediction markets. For example, as discussed below, a key

\(^{208}\) See, *e.g.* Mainstream Marketing Services, Inc. v. FTC, 358 F.3d 1228 (10th Cir. 2004) (upholding federal Do Not Call List from attack).

\(^{209}\) *Central Hudson* at 566.
A rationale for certain commodities restrictions may be to avoid disruptions among commodities traders exchanging large sums of money, and such a regulation, while a legitimate government interest in that context, may not be of much use in achieving that interest when applied to an information market. Likewise, a rationale for prohibiting private lotteries might be to reduce competition to the state-run lottery, but we suspect prediction markets would not pose such competitive challenges to a state’s gambling and revenue raising operations.

Fourth, under the *Central Hudson* test, the regulation may not be more extensive than is necessary to serve the governmental interest. In this regard, it seems noteworthy that many of the government rationales for regulation of prediction markets occur only because of the presence of money. When money is not involved, however, it is far more difficult to imagine a governmental regulation that might satisfy the *Central Hudson* test. Thus, at the very least, government regulations ultimately may have to carve out exceptions for money-less information markets. And information markets such as the IEM that involve relatively small amounts of money such as $500 would seem more likely to receive constitutional protection if the types of interests that might justify regulation when large amounts of money are involved may seem to be overbroad when applied to small-scale financial stakes. In short, although there are good reasons to question whether information markets are commercial speech, to the extent that they are, the *Central Hudson* test is still likely to impose significant constraints on the ability of government to regulate prediction markets, particularly when the markets involve little or no real money changing hands.

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210 *Id.*
In sum, we have concluded that much of the activity that occurs in a prediction is comparable to the type of activity that traditionally receives First Amendment protection, in that it encompasses expression and furthers truth. At the same time, the traditional tests that have been developed are not an exact fit for this new technology. How should the government respond?

IV. SOLUTIONS: BACKING AWAY FROM THE CLASH

In this section, we explore ways that all three branches of the federal government might work to reduce and resolve this tension between regulation and the Constitution, so that legitimate governmental regulatory concerns can be satisfied while still allowing prediction markets to do their work. In doing so, we present a new legal test, adapted from obscenity law, that may prove useful to courts grappling with these issues.

A. Executive-Branch Action

In many ways, the executive branch is the least-cost avoider to prevent any conflict between prediction markets and the First Amendment. Because the executive branch will initiate any enforcement action, its discretion and judgment alone may resolve the tensions without any intervention by the legislative and judicial branches.

With regard to online-gambling, for example, Section 5364 of the Unlawful Internet Gambling Enforcement Act of 2006 directs the secretary of the Treasury and the board of governors of the Federal Reserve, in consultation with the attorney general, to

211 See Frederick Schauer, Towards an Institutional First Amendment, 89 MINN. L. REV. 1256, 1274-76 (2005) (describing institutions that advance core First Amendment values).
prescribe regulations dealing with restricted transactions. 212 These forthcoming regulations could (and one suspects likely will) to contain a definition of “gambling” for purposes of the act. If the regulations clarified that “gambling” for purposes of the act did not include participation in information markets devoted to predicting future events, then it is likely that the most striking conflicts with the First Amendment could be avoided. The regulatory drafters would need to design a definition that would exclude constitutionally protected speech while still furthering the congressional intent behind the statute. Such a task may have its complications, but it is eminently achievable, and thus the underlying constitutional conflict could be avoided. 213

More broadly, the exercise of prosecutorial discretion by the Department of Justice and regulatory agencies such as the Commodities Futures Trading Commission can help prevent conflicts between protected speech. To date, the record of judgment in this area seems mixed. On the one hand, the CFTC no-action letter to the Iowa Electronic Markets seems a sensible recognition that the type of activity occurring when people predict the next president is far different from the traditional trading of wheat and currency. Likewise, the CFTC’s apparent limitation of the Tradesports enforcement action to contracts involving what looks like traditional commodities suggests at least some recognition of at least the statutory limits of authority, though perhaps not the constitutional limits. On the other hand, Department of Justice subpoenas directed at commercial banks for their loans to off-shore entities may suggest an overly aggressive


213 To assist the government in this regard, scholars who research and write about information markets might to well to provide comments in any notice-and-comment period before administrative action.
approach to enforcement, particularly if it extends beyond traditional gaming activities such as on-line poker to reach the type of conduct that contains an expressive, predictive element. And more generally, neither the Department of Justice nor the CFTC have made clear their intention to respect the type of First Amendment activity incorporated in most prediction markets.

As initially discussed above, one solution for the current legal uncertainty regarding the legal status of prediction markets is for one federal agency, perhaps most likely the CFTC, to become the sole regulator of the field. Although it remains open to dispute whether such regulation is necessary (or even always within the agency’s statutory jurisdiction, depending upon the nature of the prediction market), a clear regulatory system would clear up much of the uncertainty. Moreover, to the extent that the regulation respected the First Amendment values involved in the prediction markets and preempted other less enlightened interference, such governmental involvement could conceivably allow prediction markets to develop faster than they would in an environment of regulatory uncertainty.

B. Congressional Action

If the executive branch does not resolve the conflict, congressional action offers another way of dealing with the tensions between enforcement actions and constitutionally protected activity. But this poses special problems. If the executive branch is the least-cost avoider, Congress is perhaps the highest-cost avoider. Any law would require attention from a legislative body with many pressing matters on its hands,

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214 See Sorkin & Saul, supra note 7.

215 See Section III, supra.
and it seems unclear at best if Congress would devote the time to pass legislation to
protect what is at the moment the narrow and specialized area of prediction markets.
Worse, at least some members had a negative reaction to a proposed information market
that was deemed (rightly or wrongly) as allowing bets on terrorism, and these negative
legislative views, even if unwarranted, may present a substantial barrier to finding the
consensus to protect information markets. This may be especially true when protection is
being sought, after all, from laws such as the online gambling bill that Congress itself has
recently passed, and which thus may appear to be asking members who recently passed
the legislation implicitly to admit error.

A legislative solution is not impossible, of course. The online gambling bill was
passed by a Republican Congress partly to satisfy the concerns of social conservatives.216
With a new Democratic majority in both houses, the anti-gambling lobby may have less
influence, and there might be a willingness to modify what might be perceived as the
excess of a prior legislature. Yet this possibility seems uncertain at best, and at this point,
there is little-to-no evidence to think that such legislation is imminent.

Nevertheless, if Congress were to pass legislation to protect prediction markets,
what should it look like? Professor Tom Bell has proposed a draft bill that would protect
prediction markets that address scientific developments.217 We certainly think that
congressional protection of prediction markets would be a positive development. But we
note that if Congress is going to invest the time and attention to protect prediction

216 See, e.g., Anna Palmer, Online-Gambling Interests Lose 10-Year Fight, LEGAL
TIMES (Oct. 9, 2006) at 13 (describing lobbying fight as “a huge victory for social
conservative groups.”).

217 Bell, Promoting the Progress, supra note 14, at 86-87.
markets, it seems unlikely to do so for this narrow field more than once. Consequently, it is important that any protective legislation cover the bulk of existing markets that contain constitutionally protected speech, and it is also important that such protective legislation be broad enough to allow prediction markets to flourish as broadly as possible.

Unfortunately, Bell’s proposed legislation protects only scientific predictions – not those involving other important areas such as law, politics, culture, and economics that also enjoy constitutional protection. These areas are valuable areas in which prediction markets can develop, and predictions in these areas also involve elements of free speech. They also deserve protection, along with scientific speech, and thus any protective legislation should sweep more broadly than Bell’s proposed bill.

If congressional legislation were to cover prediction markets with broad protection against prosecution and governmental interference, this law may provide significant political advantages. The United States would have a regulatory regime for prediction markets more comparable to the freedom present in many other nations, which would keep the United States from being burdened by a competitive disadvantage in the development of this new predictive technology. Keeping prediction markets based in the United States may even ultimately aid regulatory efforts because, if markets are driven to more hospitable environments in Europe or Asia, U.S. authorities will suffer diminished control over a technology that has much of its origins in this nation. If Congress but looks, it will find many reasons that prediction markets should be promoted, not stifled.

C. Judicial Action

\[^{218} Id.\]
If the executive branch is the least-cost avoider and the legislative branch is the greatest-cost avoider, the judicial branch may be the least-likely avoider. By that, we mean that ultimately courts probably will have to resolve the constitutional challenge. Before that legal clash occurs, it will be helpful for legal scholarship to begin analyzing the issues that courts will face and how judges might successfully resolve them.

The task will likely prove to be novel. As discussed above, none of the most common classifications of speech seem a perfect match for this new system of collaborative information gathering. But we think that, surprisingly, legal guidance can be found from an unexpected source—obscenity law. At first glance, the fields may seem dissimilar, if only because pornography and prediction markets appeal to extremely different interests. But because prediction markets and gambling are often lumped together (and gambling, for good or ill, has traditionally been associated with vice), some of the tests developed in connection with another vice can be potentially useful. Perhaps the way the Supreme Court has addressed sexually offensive material intermixed with constitutionally protected expression might offer guidance for dealing with expression that is intermixed with what some might view as gambling.

The key legal test for regulating obscenity is set forth in Miller v. California.\footnote{413 U.S. 15 (1973).} Here, the Supreme Court concluded that:

The basic guidelines for the trier of fact must be:

(a) whether "the average person, applying contemporary community standards" would find that the work, taken as a whole, appeals to the prurient interest, ...
(b) whether the work depicts or describes, in a patently offensive way, sexual
cconduct specifically defined by the applicable state law; and

(c) whether the work, taken as a whole, lacks serious literary, artistic, political, or
scientific value.\textsuperscript{220}

How might such a test appear if translated into the field of prediction markets?
An analogous test might look as follows:

(a) whether the average person would find that the activity, taken as a whole,
appeals primarily to an interest in gambling for profit

(b) whether the activity violates conduct specifically outlawed by state or federal
law; and

(c) whether the activity, taken as a whole, lacks serious artistic, political,
economic, or scientific value.

Obviously this test will require definition and application by the courts, just as the task of
trying to apply the \textit{Miller} test has resulted in no shortage of litigation. Nevertheless, the
importance of the First Amendment interests at stake may make such judicial intervention
inescapable, just as it was in the case of obscene and pornographic images (a form of
speech that arguably lacks the significant social value that can be obtained from
prediction markets). And given the difficulty in applying other First Amendment
categories to this new technology, we think that the \textit{Miller} test offers a useful analogy for
discussion.

How might this test work in practice? As one of the harder cases (at least
compared to a play-money or university-sponsored prediction market), let us consider the

\textsuperscript{220} \textit{Id.} at 24.
application of the test to a prediction market (1) that uses real money to purchase tradable securities, (2) that is run by a for-profit institution and not an academic institution, and (3) that involves trading predictions about political events such as who will win the 2008 presidential election or whether the Supreme Court will strike down state-sponsored affirmative action.

This test’s first prong, requiring that the activity taken as a whole appeals primarily to an interest in gambling for profit, is at least partially satisfied by the profit motive of both the participants and the organizers. Unlike the many prediction markets that use play money, this type of market can find no easy escape by its non-commercial nature. The remaining question is if these sorts of activities – predicting the outcome of presidential elections and Supreme Court rulings, for example – constitute “gambling.” On the one hand, the activity consists in placing a monetary wager on the outcome of events not within one’s control, arguably analogous to placing a bet on which football team will win the Super Bowl next year. On the other hand, the outcome does not depend on chance, as much casino gambling does, and the expressive elements of political speech embodied in the topics should, by this point, be clear.

But let us concede for purposes of this hypothetical that the activity in the prediction market constitutes “gambling.” As indicated above, we think that if a court were to balance the harms of the activity against the advantages of the type of political speech at issue, the balancing test would overwhelmingly favor constitutional protection. Yet these sorts of balancing tests are frequently, and perhaps inevitably, subjective, and they may not provide the sort of legal predictability that appears important for the development of information markets. If a Miller-type test could prevent this uncertainty,
it might overall be best for the information markets, even if their predictive activities are classified with the labeled with the tawdry-sounding description of gambling. So let us assume that a court will deem the prediction to be gambling, and then continue on with the constitutional analysis.

This test’s second prong, which requires activity that violates conduct specifically outlawed by state or federal law, might indeed be satisfied, either under currently law (as discussed above) or by future, more stringent legislation. Granted, as discussed above, it does not appear at this point that the legislation directed at gambling necessarily had information markets in mind, and particularly given the expressive elements present in prediction markets, courts might well wish to wait until the will of the legislature or executive-branch administrative agencies were more clearly expressed. But let us assume that an intent to restrict or ban prediction markets did exist. What then?

This test’s third prong, perhaps in practice the most important, is whether the information market, taken as a whole, lacks serious artistic, political, economic, or scientific value. We think this prong will be extremely difficult to satisfy for any prediction market that predominantly focuses on political, economic, cultural, or scientific tropics. Efforts to predict future outcomes of important questions such as elections, Supreme Court decisions, or scientific discoveries seem to have inherent value, even if ultimately unsuccessful. And if these predictions from information markets prove accurate, as they frequently have in the past, then the value of the market seems even more evident.

What activities might fail this third prong? We think the prime candidate might be games of pure chance, such as casino-type slot machines, because the purely
recreational value of such activities are unlikely in an constitutional analysis to outweigh a state or federal legislative action to restrict such activities.\textsuperscript{221} Likewise, though the matter is perhaps less certain, we would not be surprised to see courts conclude that predictions on sporting events lack the societal value to justify overriding legislation on constitutional grounds. Admittedly, sports prediction can certainly be an activity of skill, and in that sense it is qualitatively different than the spin of a roulette wheel determined by pure chance.\textsuperscript{222} Nevertheless, to the extent that government authorities wish to restrict or eliminate such activities, we do not think that sports predictions seem to possess such evident social value that most courts would be willing to grant sports forecasts constitutional protection instead of deferring to the legislative branches.

So what result from this regulatory regime? The answer, we think, is that the prediction markets on most academic subjects – politics, economics, and science – would be constitutionally protected, whereas prediction markets on entertainment and sports would be left to the mercies of the political branches. Is this ideal? The answer partly depends on the reader’s political desires, of course. We personally might wish for anything that even remotely looks like a prediction market to be free to thrive. But the result of this regulatory regime at least presents a sort of compromise that would protect the most crucial aspects of prediction markets while permitting government regulation in areas with arguably less social value. If this result does not completely satisfy either government regulators or those seeking to protect all prediction markets, it strikes us at least as reasonable compromise that will allow (many, if not most) prediction markets to

\textsuperscript{221} See Section III, supra.

\textsuperscript{222} Id.
develop with greater legal certainty. Given the importance of prediction markets and the need to preserve their development, we think that even this compromise result is well worth achieving.

V. CONCLUSION

Prediction markets offer the potential to shape the way that we collect knowledge and understand future events. In our earlier survey of information markets and discussions with market founders, we documented government regulation as one factor that was inhibiting the growth of this field.\textsuperscript{223} Since then, especially with the October 2006 gambling legislation, the regulatory atmosphere has worsened.

Because of the expressive interests at stake in a prediction market, we argue that this regulatory zeal is not only misplaced, but potentially unconstitutional. Participating in an information market involves sharing one’s knowledge, skills, and insights with the rest of the market. Such expression is constitutionally protected, just as is writing a predictive opinion article in the newspaper or giving one’s views to a pollster. The mere addition of money (either real or virtual) into the equation should not change the constitutional conclusion, particularly when there seem to be few negative externalities.

Although some amount of sensible regulation may be in order to protect the participants, the wholesale outlawing of prediction markets through a mistaken analogy to gambling should be rejected. Prediction markets offer significant potential for a glimpse into our future, and we need this knowledge. The law should allow this new Cassandra the chance to speak.

\textsuperscript{223} E-mail from Emile Servan-Schreiber, CEO NewsFutures, to Robert L. Rogers (Aug. 3, 2005) (on file with author).