Love, Games and Gamification: Gambling and Gaming as Techniques of Modern Romantic Love

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1. Introduction:

Some contemporary commentators claim that dating has been *gamified* by digital devices and platforms. Tomas Chamorro-Premuzic (2014) describes the present condition of ubiquitous tech-enhanced dating as a *technosexual era* where dating is increasingly gamified. Nichi Hodgson (2018) claims that Smartphone dating applications such as Tinder 'invoke the gambler in us', since 'gamified dating apps' are compulsive and even addictive. Anil Isisag (2019: 136) suggests that *'gamified app interfaces'* indicate a shift from the '*hypercognized dating market'* of online dating websites *'to a ludic dating market logic'*. In this context, gamification is seen to both intensify and mask the marketization of dating and intimacy (Isisag 2019:136).

Deterding et al (2011:10) define "gamification" as 'the use of game design elements in non-game contexts.' This paper will claim that the very prelude, or overture, to coupling in the context of Northern European modern romantic love has long been *characterised* by aspects of gaming, initially, by games of chance, that have latterly become calculations of probability. Furthermore, these practices have undergone a particular acceleration in the context of online dating applications. We consider online dating apps to be the logical corollary of modern Western dating practices which have emerged from idealised European iterations and practices of modern romantic love.

This paper contributes to an ontology of gaming, drawing together pre-digital and postdigital forms of play central to social and economic practices. In his classification of games, Roger Callois (2001[1958]) claimed that play can be defined by certain qualities, being rule-based; voluntary; and occupying a distinct reality from the time and space of everyday activity (9-10). The space of competitive games is seen to facilitate the suspension of ordinary laws, and a vindication of personal responsibility (10; 18). Both games of skill and of chance aim to establish equality between players,

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despite existing social inequalities (ibid). Games are considered 'unproductive' (10), an idea contradicted by today's transparent conflation of labour and play. Indeed, the evolution of gaming will be seen as integral to processes of marketization.

While flirtatious play is acknowledged as part of contemporary dating (Frank and Klincewicz 2018: 27), we explore such behaviours in several distinct historical contexts, in order to explore the prevalence of gaming in romantic love and coupling. We also consider how gaming is transformed by evolving theories of chance. Games of chance would give rise to the formal theory of probability in the seventeenth century, leading to the obsessive collation of data in the nineteenth century, and statistical inference (Hacking 1990: 6). Today, data gathering, and mathematical modelling are seen to lead increasingly to the automation of human decision systems.

Romantic love is traced through its most public, 'normative' heterosexual manifestations in early modern European culture, acknowledging women's subordination via the homosocial relations between men. About homosociality, Eve Kosofsky- Sedgwick (1985: 26) writes that in patriarchal social structures, women have long been objects of exchange: 'property for the primary purpose of cementing the bonds of men with men.' *Homosocial desire* is distinguished from love or homosexuality, being the desire to reproduce society in the interests of men, in part, by the subordination of women (ibid 2-3). As such, it is in keeping with forms of male supremacy that are highlighted throughout this paper.

We start in the feudal twelfth century, where some claim that modern romantic practices begin (Burns 2001; Singer 1987). In Medieval Northern Europe, *courtly love* was capitulated as *'the great game,'* and a *'game of chance'* in which unmarried knights attempted to acquire the favour of the most powerful woman on the estate, testing their mettle against her husband, the Lord (Duby 2005; Wollock 2011; Kendrick 1988). As part of chivalric practice, the game was largely a contest between men, whether a display of superior strength, or wordplay, aimed to ridicule and condescend an opponent.

The second example considers the Dutch republic, a point of transition between feudal and merchant societies (Van Zanden and Prak, 2006: 2). The republic was much concerned with managing chance and risk, contributing to its rise as an economic power. We look at mathematical and economic interest in chance during the seventeenth century, especially the formulation of probability through gambling, that gives chance rational, economic form. Romantic love's early modern conducts also have allegiance with gambling found in examples of literature, painting, and board games, which filter into the middle classes (Luhmann 1998; Nevitt 2003; Leesberg 2015; Sutton 1984).

The subsequent section acknowledges that probability in the seventeenth century, gives rise to statistical data in the nineteenth century (Hacking 1990: 2). We find the search for, and sustainability of, modern romantic love increasingly subject to statistical analysis and calculation. For example, in Honoré de Balzac's satirical *Physiology of Marriage* (1932: 22) he scolds the bureau of statistics for neglecting to provide a survey of 'honest wives,' which he aims to provide. Human behaviour in general, is progressively gathered into contingent datasets, that appear to give rise to objective facts.

The final section analyses 'gamified' digital smartphone apps and devices, whereby the logic of prediction becomes increasingly automated. Shoshana Zuboff (2019) claims smartphones become increasingly difficult to distinguish from the body of the user, contributing to the increasingly compulsive use of digital apps. While digital platforms facilitate the variability of practices once associated with coupling, we see an acceleration of ludic capacities that are ultimately financially productive. In this case, variability and choice provide further opportunities for economisation. It is questionable whether the 'relationship' here is between 'users,' or between user and digital corporation, often personified by the entrepreneur of Silicone valley.

2.   Love and Games:

We begin by defining *romantic love* as a distinct form of human love. Lindholm (1998: 30) explains that romantic love is not limited to a particular class, social structure, sexual orientation, cult, quest for identity, nor evolutionary incentive, but reflects a human need for closeness in contrast to the social world. The author claims that certain qualities of feeling, and expression typify romantic love across cultures: 'an intense idealization of a loved person, feelings of exaltation in their presence, and suicidal despair when they are absent' (Lindholm 1998: 30). These tendencies are shown to exist in numerous cultural and historical contexts although the practices associated with them are extremely varied. Some of these variants are bound up with sexual consummation, while others are not. For example, the Pukhtun of Northern Pakistan pursue clandestine affairs after marriage (Lindholm 1998: 7). In Medieval European contexts, recorded romantic expression was often not for one's spouse, but for the idealised wife of the Feudal Lord (Lindholm, 1998: 8; Singer 1987: 15). It is the erotic dimension of love that gradually takes centre stage in modern European culture.

 Irving Singer (1987: 13-14) claims that European romantic love is a historical comingling of elements: by the renaissance, courtly concepts intersect with Neoplatonic idealist preoccupations, and with the love of God. Notably, idealist concepts of love emerge from Platonic philosophy, and are rooted in same-sex love common to ancient Greek society, particularly between men. Thus, while examples here are largely focused on religiously- sanctioned heterosexual love and marriage, Western concepts of romantic love have long been informed by non-heterosexual relationships. Forms of heterosexual romantic love can also be found to have ancient roots. The Roman poet, Ovid, in *Ars Amatoria* (*The Art of Love*) refers to the male lover as a 'gamester' who must win a desired woman at all costs (Ovidius Nāsō 1855). We will see

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that the violence of his methods and the irreverence with which they are conveyed, reframes Callois' notion that certain games engender a relinquishing of personal responsibility.

In its ideal state, modern romantic love often references an ineffable quality, beyond human value systems. This value that expresses no value is interestingly referenced in competitive games such as Tennis. For example, the 1897 *Encyclopaedia of Sport* (Aflalo and Peek 1897: 621) defines Love as 'nothing scored,' and can be traced to Singer's book on playing cards, which claims that love, latterly 'luff', was an old Scottish word whose original meaning was *nothing* (Anon 1919).

In *Love as Passion*, Niklas Luhmann charts a shift in the codification of passionate love (latterly, romantic love) from idealisation in the Middle Ages, to paradoxicalisation in the seventeenth century. Love's symbolic code is seen to exemplify a 'playful paradox' (Luhmann 2012: 48). While encouraging appropriate feelings, the code increases the 'probability of the improbable' (Luhmann 2012: 9). For example, love enhances communication by doing away with direct speech- relying rather on anticipation and an 'understanding' beyond what is usually deemed possible (Luhmann 2012: 25). In another example, he notes that acting upon one's passion can simultaneously be associated with passivity and helplessness (Luhmann 2012: 60). This 'semantics of passivity' was deployed rhetorically in situations where women were held responsible for inflaming men's desire (Luhmann 2012: 60).

In short, romantic love is historically associated with states of idealisation and desire that become preoccupied with physical consummation in European contexts. As a modern system of codification, romantic love is paradoxical, making conditions that might otherwise seem impossible or contradictory, appear rational. Although it is rule-based, its ideals are outside of quantity or definable quality, indicating states of play for no sake but their own. Playfulness and paradox allow a lack of personal accountability to be built into love's discourse and we see some commonality here with the formal definition of games according to Callois. Critically, romantic love has evolved in accordance with the tenets of homosociality, foregrounding the fulfilment of male desire.

3. Courtly Love:

In order to comprehend the association between medieval practices of love and gaming, we need to understand the historical context of chivalry. During the Middle Ages, feudal communities spread from France, throughout Western Europe, characterised by large estates, or communes. These were presided over by Lord and Lady, surrounded by a warrior class of knights, and clergy. This vast household can be compared to a small sovereign state (Duby in Aries and Duby 1988: 9). In a society founded upon male supremacy, chivalry was a code of conduct that set out the ideal comportment of knights. Catalan missionary, Ramon Lull, himself a former knight, attempted to distil this comportment into an instructive manual, *The Book of the Order of Chivalry* (2013 [c.1276]). Lull was writing after a second failed crusade against Islam, wishing to instil greater self-discipline in the knights to ready them for "continual warfare overseas…" (2013: 3). His manual advances an image of select attributes that still haunt ideals of Western hegemonic masculinity. The knight must be without physical impairment, courageous, and willing to fight against 'evil' (Lull 2013: 48; 60). Chivalry was an exclusive entitlement, requiring commitment to justice through being both loved and feared (Lull 2013: 41). Knights are advised to avoid the 'vice of lust' and 'gird the sword upon him to signify chastity and justice' (Lull 2013: 54; 65). In contrast to women, men are considered predisposed toward goodness, noble courage, education, and manners, and this is seen to naturalise his capacity to be more treacherous (Lull 2013: 41). Qualities of being loved and feared, physically powerful, heterosexual, and being master of ones' own fate, are qualities still associated with hegemonic masculinity today. Lull reproached knights who, too often, let desires run out of control, indicating a mythical dimension of male desire, whose potency must be sublimated in contest and violence.

Deemed a scandalous expression of secularism, *'fin'amors'* ('elegant or aristocratic love'), (Wollock 2011: 6), courtly love was a game devised and played by men, exalting masculine values,

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situating women as lure and prize (Duby 2005: 33; 35). Despite injunctions against lust, and the fact that laying with the Lord's wife was taboo (Lull 2013: 52), the game required a bold transgression of social prohibitions, whereby a knight would attempt to gain favour with the Lord's wife in an act of superior 'free' love (Duby 2005: 19). The Lord himself, might mobilise his wife as 'bait' as a means of ultimately drawing the knights closer to him (Duby in Aries and Duby 1988: 76). These tensions were dramatized by Romance literature and poetry, in which courtly love became known as 'the great game' (Wollock 2011: 112; Duby in Aries and Duby 1998: 82). Such literature often considered love and marriage incompatible (Wade- Labarge 2001: xii). 'Love,' in this case, was a practice of idealisation that concerned the problem of prohibited, erotic consummation. The adoration of an unattainable woman can be understood as a socially acceptable expression of subordination (Kendrick 1988: 184). Thus, winning the favour of the Lady not only indicated an increased advantage over peers, but potentially over the Lord himself.

Troubadours were celebrated poets of the period, often knights, whose work was both written and performed, sometimes in earnest, sometimes with surprisingly modern humour and vulgarity. *The game of Love* in this context, was a play of verbal showmanship, frequented with entendre and indeterminacy, enabling further 'dramatization of social tensions and their resolution through symbolic action or dissipation through laughter' (Kendrick 1988: 186). Kendrick gives the example of the twelfth century troubadour, Marcabru, who mocked the tentative suggestiveness and melancholy of other poets with barely disguised code names, such as "Bon-al-fo" ("Good-to-Fuck") (Kendrick 1988: 185). Ultimately, like the game that it recounted, the language of the troubadour represented the battle of wits between men. 'The players goal was not to win the lady but to win the game, to conquer the masculine opponent(s)' (Kendrick 1988: 186). The contest rather reflects the male bonds between men. Elements of luck associated with chance were not precluded from a troubadour's misfortune and longing. The example, '*Quan chai la fueilha* (When the Pale Leaves Descend) by troubadour, Arnaud Daniel (1180-1210), makes the point:

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In true love-making

I find none here to blame,

With others, playing,

There's bad luck in the game,

There's none the same

As her, there's no repeating,

She's one I name

Beyond all equalling.

(Various, n.d. 76).

[**INSERT FIGURE 1**: '*Bildteppich mit der Minneallegorie und Spielszenen, so genannter Spieleteppich'. Probably Upper Rhine, Ca.1380; tapestry of linen and wool, 142 x 390 cm*]. Courtesy Germanisches National Museum.

In figure 1, *Tapestry with the Minneallegorie and game scenes, so-called game carpet* (ca. 1380), probably from the Middle Rhine, a large tapestry curtain depicts games played between adult men and women. These include tag, blind-man's cow, *Mains Chaude*[i]; and other tactile amusements. Two men appear to have been tied to posts by one young woman. The scene is based upon the *Minneallegory*, an allegory in which a castle of beautiful ladies is stormed by love-hungry knights, who use confectionary and flowers as ammunition! Notably, men and women could be equals only in a combat predicated upon the ultimate subjugation of women. Indeed, it is suggested that, as the object of

desire, a Lady could 'temporarily enjoy a position parallel to that which the Lord… enjoyed, at the centre of the network of real power' (Duby 2005: 34). Unsurprisingly perhaps, given the risk of such *enjoyment*, as well as injunctions to be both chaste and desired, a simultaneous hostility toward women is recorded, with wives suspected of being 'inconstant, lustful,' or witches (Duby 2005: 20).

Lull advises Knights to avoid intimacy with peasant women, for fear of destroying the 'antiquity of lineage' (2013: 81). We see that lust, like love, must be engineered toward the propagation of privilege. In Andreas Capellanus' classic Twelfth-Century French text *The Art of Courtly Love*, the author posits that 'love' is only possible for the aristocracy, stating, 'it rarely happens that we find farmers serving in Love's court, but naturally, like a horse or a mule, they give themselves up to the work of Venus, as nature's urges teaches them to do' (1960: 149). Poverty and love cannot co-exist because 'poverty has nothing with which to feed its love' (Capellanus 1960: 30). By considering behaviours to be in the 'nature' of a particular class, 'love' helped to reinforce the 'naturalism' of class distinctions. We see that courtly love affirmed homosocial bonds, ensuring that social hierarchies were effectively managed and reproduced. Games were a means of dramatizing these social hierarchies while reproducing them, even as their transgression was thrillingly provoked.

4. Capitalism and Chance

The Dutch Republic (1588-1795) is considered an 'intermediary' between medieval commune and modern State formation (van Zanden and Prak 2006: 112). This transition sees an increasingly democratised social system and the liberalisation of marriage practices amongst the middle class in Seventeenth- Century Holland (Nevitt 2003:12). Just as marriage was largely predicated upon the debt of women to men, so too could the state elicit an apparently consensual citizenship through forms of debt. By 1609, the republic had established the first centralised banking

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system and exchange for merchants and government, whose money was more reliable than gold or coinage (Graeber 2014: 339). Yet, it was the monetization of government debt bonds, via annuities and interest, that are deemed to be the real credit of this new age (van Zanden and Prak 2006: 139). The united Dutch provinces financed its wars of independence from Spain through 'coercive' public loans, and by floating voluntary bonds, so that by 1650, a majority of Dutch households had small amounts of government debt (Graeber 2014: 339; van Zanden and Prak 2006: 133).

It has been noted that in early mercantile societies, gaming and gambling were indiscernibly political, social and recreational (Kingma 1996: 201). Even as the Dutch Republic became a leading capitalist power in the world, boundaries between the unsystematic chance of gambling, and organised trade remained vague (Kingma 1996: 199). National lotteries became a popular way to fund churches and charitable organisations, as well as allowing the wealthy further opportunity to win coveted goods such as silver (Kingma 1996: 200). Games of chance and gambling increasingly fascinated mathematicians of the time, and the Republic has become synonymous with the formalisation of chance through *probability*, via the analysis of gambling. Numerous authors (Daston 1994; Hacking 1990; Federici 2004; Devlin 2012) claim that chance was economised by the mathematical invention of probability in the seventeenth century.

The theory of probability emerged from calculating the value of a player's position in an unfinished gambling game. In this case, all possible futures must be calculated- not only those defining the present state of play. Calculations should include what *would* happen, as well as what *could* happen (Devlin 2012). Pascal and Fermat laid the groundwork for the theory in conjunction with a gambling problem posed by Chevalier de Mere in 1654 (Leung 2011). This included the 'combinatorial' method, whereby one lists all possible sequences of winning and losing for each player; and the 'method of expectations', where the value of a gamble is equal to its expectation of gain (Knobloch 1994: 1291). In analysing games of chance as a model for the way in which

randomness could lead to economic certainty, Pascal and Fermat developed *the wager* from an informal means of estimation to a system of establishing belief.

Dutch polymath, Christiaan Huygens, popularised the theory of probability in a 1657 paper entitled *The Value of all Chances in Games of Fortune,* claiming to establish the monetary value of chance itself:

> Or, if another desired to purchase my Place and Chance, how much I might just sell it for. And from hence an infinite Number of Questions may arise between two, three, four, or more Gamesters: The satisfying of which being a thing neither vulgar nor useless... (Huygens 1714)

Probability oiled the workings of a predictable state machine that functioned much like Huygens other famous invention, the clockwork clock. He advanced an increasingly rational project in which market strategies, like measures of astronomical time, gathered gravitas as objective measures from generalised abstraction. Huygen's ideas were applied to the pricing of annuities and life insurance policies by Prime minister, Jan de Witt, in a 1671 (Shafer 1994: 1296; Hacking 1991:102). Although gambling provided the impetus for a formal theory of probability, it was one of the few areas of life to remain associated with the ambiguities of chance. Another was romantic love.

[**INSERT FIGURE 2**: Quentin Massys *'Ill- Matched Lovers'. Ca. 1520/1525 oil on panel 43.2 x 63 cm*]. Courtesy National Gallery of Art, Washington.

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Gambling games found great representational value in seventeenth century Dutch genre painting, particularly as a metaphor for themes of a romantic or sexual nature. Peter Sutton (1984: xxvi) claims that the origin of such painting can be found in sixteenth century works such as Quentin Massys '*Unequal Lovers'* (c.1522-23), one of the most popular genre subjects (figure 2). Its numerous iterations depict variations upon a theme: a young woman caresses a much older man as she discreetly passes his stolen purse to her companion (Sutton 1984: xxvi). We note that the woman's companion is the fool, who looks more lecherously upon the winnings than the man does upon the young woman. A deck of cards and several coins litter the table, indicating that this is also the scene of a gamble- one that, for the conspirators at least, appears to have paid off. It is noticeable that the top card is in the suit of hearts. The moral lesson here seems to be that '*love'* can be gamed to multiple ends- not all so idealistic.

A taste for genre painting depicting games between men and women, 'undoubtedly expressed the popular notion that love is a game played between the sexes for high moral stakes' (Sutton 1984: xxvi). Genre paintings that depict *Merry Company* demonstrate many of the motifs associated with love and chance in Dutch social life. Groups of socialising adolescents; games of tric-trac; gambling; aphrodisiacs such as oysters, drinking and smoking, all pertain to a loosening of morals, simultaneous with the democratization of amorous codes (Nevitt 2003: 102; Sutton 1984: xxiv-xxviii). Such allusions can be seen to indicate modes of communication in which direct speech is suppressed in favour of inference, gesture and uncertainty. Action becomes predicated upon internalising the conduct and future manoeuvre of the other. Souvenirs and tokens became a virtual currency amidst upper- and middle-class youth, giving contractual form to amorphous affect. Precious stones; combs; miniature paintings; plates; handkerchiefs and ribbons constituted rituals of exchange (Ranum in Aries et al 1989: 246). Like the paintings discussed above, these artefacts can be seen as a

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manifestation of love's new democratised economy and capitalist context. They indicate staking a claim in a desired partner, attempting to assuage the uncertainties of chance through indebtedness.

In 1620s Antwerp, Flemish engraver Pieter de Jode I, published a printed board game entitled the '*Royal Game of Cupid,*' alternatively, 'the pastime of love.' Intended for adults, it was a gambling game that notoriously incurred large debts (Leesberg 2015: 26; 34). The winner was the first to the centre of the board, where, in the garden of love, cupid waited. The game's beginning depicts the head of a coiled snake, highlighting courtship as 'a perilous activity in which the possibility of sin lurked beneath the surface of seemingly polite activities' (Nevitt 2003: 4). A version made by Amsterdam's Claes Jansz Visscher between 1625 and 1640, shows a peasant couple, making 'crude' music with kitchen implements, in *den boertigen Ho van Cupido* (*the peasant garden of Cupid*), *boertig* connoting qualities of farce and peasantry - a fashionable joke amongst the Dutch upper class (Leesberg 2015: 39; Nevitt 2003: 4). Despite the mocking tone, we can perhaps infer that love between the lower classes is no longer entirely implausible, even as it is ridiculed.

Numerous advisory guides and song books on romantic conduct emerged among the literate middle class. In one such popular guidebook, Jacob Cats', *Houwelyck, dat is Het gansche Beleyt des Echten-Staets*[ii] (1625), each chapter title refers to the 'ages' of woman: maiden; young woman of courting age; bride; wife; mother; widow (Nevitt 2003: 6). Cats' even subtitles the chapter *Maiden* as *'Pathfinder to marriage out of the maze of young love'* (Nevitt 2003: 160). While these guidebooks were written by men, it is notable that women are generally the target audience. The preface of *Houwelyck* claims the book to be a fitting gift from bridegroom to bride (Nevitt 2003: 6). Cats' makes clear that the *vrijster* (a young woman of marriageable age) can only express her love in response to her suitor's entreaties, and while she may receive love letters, she is forbidden to write them herself (Nevitt 2003: 7). Women may be the objects of love and romantic instruction, but they are forbidden to become its authors.

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In Heemskerck's 1622 translation of Ovid's *Ars Amatoria*, a frontispiece features the motto *"Utendum Est Aetate"* (trans. *'Make Use of Your Age'*) (Nevitt 2003: 8), alluding to the dangers of not actively seek marriage whilst in the bloom of youth. That Ovid's ancient Roman text reads like a manifesto for toxic masculinity, reminds us that gaming romantic conduct- and by extension, women- has a history that precedes Feudal or Capitalist Europe. Originally, Ovid's work was a guide for young, affluent Roman lovers before 'youth with marriage is oppress't [sic] (Ovidius Nāsō 1855). The text equates love with war, encouraging force where flattery fails: 'Her' reluctance, like her fastened door, should not deter the ardent lover (Ovidius Nāsō 1855). It contains early lessons in love's commerce- where the 'promise' of gifts and money can aide the cause:

> The losing gamester shakes the box in vain,
>
> And bleeds, and loses on, in hopes to gain.
>
> Write then, and in thy letter, as I said,
>
> Let her with mighty promises be fed (Ovidius Nāsō 1855).

The fact that this text became current in the seventeenth century indicates the degree to which male supremacy was reinforced, even in the realm of affect. Where indirectness, literary coercion, bribes and debt failed, force could be marshalled.

Practices once reserved for the courtly class were increasingly democratised in the Dutch republic. As marriage was increasingly predicated upon the uniqueness of individual qualities, appeals to gaming almost certainly helped to mitigate the underlying seriousness of love's high stakes and potential wounding of (male) pride. Thus, rather than taking rejection personally, one could blame chance or fate, which were interchangeable in such events. Luhmann (2012: 143) speculates that by 1800, chance was considered the trigger, or prelude, that initiated love, creating a paradox whereby chance simultaneously became fate,

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necessity, and freedom of choice. An individual's free will could thus be experienced as cosmic determination and destiny in an increasingly secular age.

Gambling games provided a template for calculating and economising chance which became central to the modern capitalist economy. 'Games of love,' at once appear to be games of chance, encoding the structured reproduction of certain norms and their economisation. In the next section, we explore the eccentricities that occurred in the nineteenth century belief that human behaviours, including romantic behaviours, were further reducible to mathematical ideas.

5. Modern (statistical) Love:

While games provided illustrations of chance processes, becoming objects of mathematical study in the seventeenth century, instances of chance and randomness massified into conglomerated data, seemed to give rise to patterns, even to underlying laws, in the nineteenth century (Hacking 1990: 3). Statistical data analysis seemed to demonstrate facts that could be 'first found in human affairs [...] noticed only after social phenomena had been enumerated, tabulated, made public' (Hacking 1990: 3-4). The search for laws made plain through statistical analysis was a wholly Western preoccupation, given the West's 'libertarian, individualistic, and atomistic conceptions of the person and the state…' (Hacking 1990: 4).

Throughout the nineteenth century, the contingent use of datasets to 'prove' various theses became increasingly absurd. For example, Belgian statistician and astronomer, Adolphe Quetelet 'used marriage rates as proof of statistical law in the domain of morals' (Hacking 1990: 128). And in 1862, it was claimed that statistics could demonstrate that love followed psychological laws (Hacking 1990: 2). Others were less idiosyncratic. Francis Galton (1822-1911), whose biometric projects addressed the science of evolution through statistics, claimed that unsuitable marriages, from the 'eugenic point of view', might be banned altogether (Galton 1904: 5). The pseudo-scientific racism characteristic of the 'eugenic view,' was that only the 'fittest races' should reproduce, classified also by their 'civic usefulness' (Galton 1904: 3). The best 'specimens of his class' would demonstrate a set of qualities that not only included whiteness, but 'manliness' (Galton 1904: 2). Galton's capacity to dehumanise was often legitimised by mathematical modelling and highly subjective data sets. For example, in a 'beauty-map' of the British Isles, he tabulated women he passed on the street as 'attractive, indifferent, or repellent' to demonstrate where the most desirable women in Britain resided (Bulmer 2003: 30). In France, Honoré de Balzac's *Physiology of Marriage* (1932 [1826]: 22), whose original titles included, *The Marital Code* or *The Art of Keeping One's Wife Faithful*, claimed that

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while the bureau of statistics had determined many facts, it had failed to provide a survey of virtuous women. He sets about correcting this omission with a satirical analysis of women who are dangerously prone to romantic fancy, warning readers to limit their wife's status because, 'a slave raised to a throne at once abuses his power' (De Balzac 1932: 118). These examples highlight how violent agendas were encoded by applying pseudo- mathematical rationality to entirely subjective qualities. The 'naturalness' of male supremacy appears to be its 'logical' result.

Throughout the twentieth century, the use of statistics retained a powerful hold on romantic matters that might otherwise be left to chance. By 1980, women were being encouraged by popular magazines to develop "a slight statistical learning" that they might better "locate suitable age specific ratios for potential partner selection when considering suitable living locations" (Model 1980: 210). More recently, the Drake Equation, originally used to estimate evolved civilizations in our galaxy, was used by Peter Backus, to calculate the number of women in the world he would be willing to date (Fry 2015: 3). The wry humour of Backus and Balzac reminds us that it is so often women who must be 'played', in order that male sovereignty be assured. It is notable that games of chance are replaced with statistical calculations that can increase the *chance*, not only finding suitable partners, but of social hierarchies retaining their hold. In the next section we consider the algorithmic logic of digital systems, returning to the notion of the *gamified* dating app.

6. Data Dating:

At the start of the paper, we noted that some smartphone dating applications are thought to 'invoke the gambler in us', due to their gamified, compulsive, even addictive, qualities (Hodgson 2018). With reference to online dating more generally, Dredge (2014) describes a *technosexual era*, as increasingly sexualised and gamified, where dating is teleological, pleasure derived from the

process of 'playing' as an end in itself (Dredge, 2014). The author refers to the popular heterosexual *Tinder* app. Launched in the US in 2012, it boasts 'location-based profile matches and text-chatting around the world' (ibid). As of 2020, Tinder has more than 100 million installs (Forbrukerrådet 2020: 70). The app's location software allows users to scroll through images of others in their immediate location with a view to potentially meeting, giving users the option to 'text' or 'keep playing'. Reflecting the apps multi-scalar uses, one article refers to Tinder as a 'smartphone dating app', a 'hook-up app', and a 'social discovery platform' (Dredge 2014). Like other digital platforms, Tinder, owned by Match Group Inc., capitalises upon user data through methods such as tracking online behaviour and location to target advertising; trading data to data brokers; and entraining AI systems. AI is set to become increasingly pervasive in digital interaction, for example, in *emotional targeting*, advertisers can use AI to, 'analyse a person's emotional state based on… behaviour, sentiment analysis, (and) facial recognition,' increasing the odds of influencing behaviour when a subject is most vulnerable (Forbrukerrådet 2020: 47). Like other logics with a basis in statistical likelihoods and abstract mathematical models, AI can make socially constructed values appear to be objective facts. For example, the Stanford psychologist, Michal Kosinski, claims that AI facial recognition can discern homosexuality in human facial features, pursuing Galton's spurious biometric social engineering (Bashyakarla 2021)

Shoshana Zuboff (2019) describes how online data is extracted from the footprint we leave in our traversal through digital space. She refers to its subsequent monetisation as *surveillance capitalism*, now synonymous with digital corporations like Google and Facebook, who,

> ... unilaterally claim[s] human experience as free raw material for translation into behavioural data. Although some of these data are applied to product or service improvement, the rest are declared as proprietary behavioural surplus… fabricated into prediction products that anticipate what you will do now, soon and later. Finally, these prediction products are traded

in a new kind of marketplace for behavioural predictions that I call *behavioural futures markets* (Zuboff 2019: 8).

Personal identifiers track consumers across services and devices, compiling data into profiles, so that our '…predispositions and secret desires are continuously monitored and collected …' (Forbrukerrådet 2020:12). Combining behavioural psychology with predictive algorithms, companies aim to predict what consumers want before they acknowledge it (Forbrukerrådet 2020:13). Google co-founder, Larry Page, suggests imagining "…your brain being augmented by Google. For example, you think about something, and your cell phone could whisper the answer into your ear" (Carr 2009: 213). Thus, the capacity to predict behaviour is also the capacity to intervene in, and alter, behaviour. It is suggested that B. F. Skinner's twentieth century behaviourism has been perfected in the current age of surveillance capitalism. Like Skinner's behaviourism, with its understanding of reward to effect compulsion, digital platforms utilise the reward of peer approval and quantified interest: 'likes' or 'hits'. Indeed, the narcotic qualities of social media are well-documented (Zuboff 2015; 2019; Lanier 2018; Bridle 2019). Digital platforms and apps utilise compulsive, often addictive, game structures first observed in casino environments (Zuboff 2019: 449). Developing the work of Natasha Schüll (2005), Zuboff describes social media's 'digital slot machine logic' as an 'intimate closed loop architecture of obsession, loss of self, and auto-gratification' (Zuboff 2019: 450).

In her analysis of gambling architectures, Schüll (2005) claims that contemporary game designers aspire to the creation of a "total machine," where play can adapt to the speed and preference of every player (Schüll 2005: 71). Digital gambling venues improve user comfort and blood circulation, reflecting the improved circulation of capital and extended play (Schüll 2005: 68). The games cultivate the *illusion of control and autonomy* through choice (Schüll 2005: 74). Some players report suspension of the phenomenal body, creating an "economy of suspension", where time and money become the fluid currency of continuous play (Schüll 2005: 75-76). In this respect, the co-

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ordinates of the body are more readily submitted to the suspended time and space of gaming, alluded to by Callois. This intensification leads to the gradual disappearance of the material technology itself, enhancing the players' immersion (Schüll 2005: 77). For Zuboff, such qualities adequately describe features of the smartphone, which becomes continuous with, or inseparable from, the circulatory routines of the body. Gamblers, she suggests, seek neither entertainment nor money, but a subjective experience that moves toward a state of *self-forgetting*: 'an irresistible momentum that feels like one is "played by the machine"' (Zuboff 2019: 450). The suspension of the phenomenal body, orchestrated by an apparatus that becomes entirely integral to the subject, provides an intoxicating elimination of space-time coordinates.

Like today's market paradigm of *high frequency trading*, where traders depend on nanosecond differences in fibre optic cables to gain competitive advantage, we too are beholden to connection speed and adrenal reflex, lest we lose our advantage over one of many million possible competitors. From this perspective, it is possible to consider dating platforms as forms of labour performed for digital corporations that mirror digital gambling strategies. Their success is due, in part, to the way that human qualities can increasingly be understood as quantities, to be *hedged* or *invested*. One paper tellingly claimed that the 'real-time evaluation of dating profiles leads to "real-time" estimation of market worth… similar to the way day-traders check online stock-market indices' (Heino et al 2010: 436). Our own value to the market-machine becomes our primary concern, as though the markets apparent surrender to us is the ultimate conquest.

7. Conclusion:

If 'gamification' refers to game design elements in non-game contexts, then it seems unlikely that Western European iterations of modern romantic love can be considered 'gamified' as such.

Love, Games and Gamification: Gambling and Gaming as Techniques of Modern Romantic Love

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What is evident, is the historically close relationship between romantic love and gaming, as well as the acceleration and ubiquity of such practices in the digital economy. That games articulate suspension of the usual phenomenological co-ordinates of time and space, is further dramatized by the exhilaration and immediacy of online connectivity today. As Schüll highlights so saliently, we are conjoined with digital systems to such a degree that we forget ourselves.

We have considered the way in which romantic love's early iterations further reinforce the 'naturalisation' of class and power, its game dramatizing social hierarchies while also reproducing them. The rule-based structure of romantic games assists in reinforcing rule-based social systems, while appearing to be driven by individual preference and voluntary participation. As the feudal *great game,* courtly love was seen to cement homosocial power, even as it situated 'woman' as object and conquest. Since ancient history, forms of 'romantic love' provided shorthand for a process of idealisation and frustrated consummation, whose energies could be disciplined into male competition and bonding. While games mitigate the seriousness of romantic rejection, particularly as coupling became predicated upon the unique qualities of the individual, they also emphasize the importance of winning. Indeed, that games engender a 'vindication of personal responsibility', gives salient insight into the use of violent force where losing may be only other option. Future work in this area might explore current aggressive forms of homosociality in online communities, such as the INCEL community (designating those who are 'Involuntarily Celibate' particularly in the 'Manosphere') and its lauding of chivalry as a return to ancient forms of male supremacy.

The harnessing of chance into statistical, mathematical models, is also the story of behavioural economics. Translating subjective qualities into seemingly objective quantities gives pseudo-scientific basis to forms of inequality, even as we are untethered from heteronormative practices. In today's ludic markets, gaming is no longer separable from productivity. It is possible that the entire project of surveillance capitalism, predicated upon the intimate data of every user, aspires to the specificity of the lover to the beloved. Luhmann's notion of love as an exclusive communicative

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system that *increases the probability of the improbable* between two people, has peculiar resonance today, where behavioural markets attempt to pre-empt our every desire. And where digital corporations anticipate whispering into our ears the answers to questions, as yet unformulated.

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Lee Mackinnon's research is based in visual culture and media technology. Published work has recently appeared in 'Third Text', 'Photography and Culture', and 'Umbigo Magazine of Contemporary Art and Culture'. Lee has produced articles, book chapters and artworks on a range of subjects and is currently Senior Lecturer at University of the Arts London.

Endnotes:

[i] *Mains Chaude*: a guessing game in which a player slaps the hand of a kneeling subject who must guess who it was.
[ii] trans. *Marriage, that is, the entire conduct of the conjugal state.*

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