

## Data and Magick: Aleatory Technologies

Below is the talk I gave at the Data and Magick "Unconference", which I truly hope becomes a full conference next year. As Kate Crawford so aptly put it:

First conference I've been to where Foucault, Crowley, data science, demons and policing are discussed in one session. [#magickcodes](#)

— Kate Crawford (@katecrawford) [December 6, 2014](#)

I gave a super (super, super) short history of Tarot, which is here in slide form:

[slideshare id=42448168&doc=datamagick-141207150502-conversion-gate02]

and then I presented a piece of my dissertation, which you can read here:

Tarot itself is a hybrid object whose history lies in game playing and which crosses between the worlds of magical, occult, and pagan practice, as well as psychotherapy and self-help. While many individuals claim the cards are “special,” no one person has a fixed interpretation or the final word on how the cards work or, rather, what could be “at work in the cards”—in fact, this speculation is at the heart of the plethora of books, articles, and workshops that are developed—as well as, I would argue, the pleasure—around this particular topic. Therefore, rather than a doctrine that must be believed in, Tarot is best thought of as speculative, experiential practice through which one opens oneself up to the dynamism of matter and energy. Given that the school I studied with placed emphasis on the associations between Tarot and Kabbalah as forged by ceremonial magicians in the nineteenth century, students at the Tarot School are introduced to Tarot through a general framework of Kabbalistic metaphysics, which explore a multiverse of energies, elements, and entities. Tarot, however, “works” even without a fully developed esoteric, magical, or metaphysical body of literature to draw from.

Not that long ago, it wasn't easy to find a deck of Tarot cards, and it was unlikely that if you found them you would think of using them to become a “professional” Tarot card reader. Many of the older members of this study recall being given a deck of cards as if it were an act of “the Tarot choosing you” and being initiated into a something that felt like a secret and existed under the radar of mainstream society. Today, you might not have to be so chosen but rather can walk into almost any bookstore and encounter a wealth of cards and books; even more immediately, you can type “Tarot” into Google and receive “about 41,800,000 results.” But what are you looking at when you encounter a Tarot deck? I suggest you are looking at a historical and evolving assemblage that affectively lures individuals to its use, which, in doing so, has become an extremely successful, if not particularly strong, social actor who has managed to persist for over five centuries, reorienting itself to the culture of its times but also continually offering the possibility of enchantment through its own obscured history.

But more immediately, when you encounter Tarot you are essentially looking at a deck of cards,

a pile of card stock, often professionally printed with various images, cut into a rectangle. As a physical object, all cards are a standardized device that are two sided, portable, small, and impermanent. And, importantly, they can be flipped. In this regard, you are looking at a very old and very simple machine or mechanism for engaging change and chance that works via the elegant gesture of the card flip. Regardless of their design or imagery, their internal structure or hierarchy, or the philosophies espoused by the deck, humans have found this type of object captivating since their evolution from Korean divinatory arrows in the sixth century (Schwartz, 41). Writing for *Card Player* magazine, the poker historian James McManus (2009) imagines the story went something like this:

One possibility is that it gradually dawned on one of the shamans that the random fall of sacred arrows—arrows unguided, the Koreans believed, by human will—could be achieved more efficiently by mixing up pieces of silk marked with the same insignia the arrows bore, then turning over the silks one by one. This would save him the steps of going outside, launching arrows skyward, and scurrying around to read and interpret which one had landed where, at what divine angle, and so forth. One frigid January morning, our shivering but imaginative soothsayer must have returned to the hearth of his cozy shelter, set down his quiver and bow, shuffled some previously marked pieces of silk, and dealt them out on a table. “Stay inside, fool,” he might have interpreted them to advise.

Although this story is facetious, historians and anthropologists agree that playing cards emerged in a synthesis of play and divinatory pursuit (as well as boredom and obsession), as cards worked as simple source for the controlled production of randomness. Such a machine, whether it was composed of silk, wood, or (eventually) paper could provide potentially valuable, divivable patterns from which to detect the hidden meaning of the fates, or they could be elaborated into a game of “chance,” where the uncertainty of a card flip could be engaged through play and rule making. This synthesis of divinatory capacity and play, neatly present in the gesture of the card flip, sits at the heart of the love story between humans and cards, which have allowed humans to ask big questions in, literally, a way they can handle and manipulate: Does fate exist? If so, how might we know it? What of chance? Does luck exist? If so, can it be cultivated? Is there a structure or knowable pattern underlying what appears to be randomness?

As Jackson Lears has so attentively traced in his work *Something for Nothing: Luck in America* (2003), these questions course through and helped define a particularly American sensibility that seeks both to engage and control chance. For Lears, chance has never quite been tamed and so continually resurfaces in the market, in cultural sensibilities about the value of risk, in entrepreneurial language, and in the ethic of success. “Despite fresh evidence that hardworking people can easily lose everything to corporate confidence men, the insistence that ‘you make your own luck’—that you are personally responsible for your own economic fate—remains a keystone of our public life,” writes Lears (2003, 20).

As Steven Connor (2011) writes in work *Paraphernalia: The Curious Live of Magical Objects*, “cards are the visible sign of communication between an unordered and ordered world, a world of mingled and overlapping hybrids, a world sorted into categories” (52). Connor writes that is the

very materiality of the card—its “flatness” and its “stiffness”—that in part lend the card a liveliness. Flatness (to have only width and breadth but not height) is, according to Conor, “is one of the strangest and the most exotic of conditions” (53) and a geometric conundrum. Yet flatness inheres in paper—as well as the page, the canvas, and the screen, to name a few. Such flatness of an ideal surface can be a site projection, but, as Conor suggests, such surfaces also act as tables or places to lay out, organize, and reorganize things (or concepts). Tables help order and reconnect. As such, a card, through its flatness, is also a table or a tabulator. Conor does not mention this, but flatness is also, physically, an enabler of movement and mobility. Cards can be shuffled, reshuffled, packed, and carried. This simple fact most likely accounts for both their popularity and their perseverance throughout history. The stiffness of cards, suggests Conor, operates as a “special kind of ambivalence” (55). Stiffness suggests “deceptiveness,” as in “to stiff someone,” yet “there is a kind of uprightness, a quasi animate erectness in the card, that, in standing up for itself seems to distain and redeem the flimsy ductility of paper. In the card rigor mortis can suddenly spring into vigor mortis” (56). Conor further writes:

Playing cards are also magical partly because they are meaningless in themselves; their power comes only from the signs they carry, and the meaning of those signs in relation to other signs. The meaning of the card is in part its arbitrariness, its flatness, its lack of intrinsic life or meaning, the fact that no card means anything on its own. Its flatness signifies this dry semioticity. Its life comes from the contingency and adjacency, from what occurs when it is laid next to another card.

While it is true that cards “speak” through the symbols or signs that they carry, we can also look to what cards can “do” or what can be “done with” cards, and we can see that a card is not entirely meaningless outside of a semiotic context. Cards, most basically, can be flipped. They can also be used, as Ian Hacking (1988) has shown, as agents of randomization, and simple playing cards were not only employed in the history of the search for telepathy, but cards as an “organizational system” (Hayles 2005, Chun 2005) played an important role in the history of computing, making possible serial functions and memory.

The card flip, however, is not only an evocative gesture that individuals have found compelling; it is also an extremely successful social actor. Through this simple gesture (as well as the throwing of dice or the invocation of those objects that have an aleatory capacity), we see not only the link between divination and games of chance but the development of the study of probability, as gambling games flourished throughout the sixteenth and seventeenth centuries and efforts were made to develop a mathematical theory of odds.

By 1560, Girolamo Cardano, a self-confessed chess and dice addict, had begun his work *Liber de Ludo Alea*, a written investigation into the nature of luck and the mathematical principles associated with random events. By the mid-seventeenth century, the general outline of probability theory was known, linking card play with a form of productivity and giving the often-condemned act of gambling a chance to enter into a scientific discourse. This linking of aleatory objects with statistics and probability demarcated the once blurry line between divination and games, with the latter being fully indoctrinated into Western European philosophical discourse as well as into the support of the state via sponsored lotteries (games, gambling, risk and

chance now seem to form the very structure of global finance, oddly rejoining the open-endedness of divinatory practice via speculative finance). As Ian Hacking, quoting Walter Benjamin, writes, “The proscription of gambling could have its deepest roots in the fact that a natural gift of humanity, one which, directed toward the highest objects, elevates the human being beyond himself, only drags him down when applied to one of the meanest objects: money. The gift in question is presence of mind. Its highest manifestation is the reading that in each case is divinatory.” The entanglement of play, gambling, and divination is at the heart of the basic pleasure associated with cards, and proscriptions against the use of cards only helped them spread within a culture of widespread game playing and fascination with the link between mathematical and philosophical insight. The card flip, therefore is not only at the heart of the Tarot love story, but it is at the heart of the assemblage of Tarot—a assemblage of game playing, magical innovation, con artistry and illusion, and, eventually, therapeutic capacity.