GRID POKER
TWO-DIMENSIONAL POKER

THE TECH DECK®

SOCIAL MEDIA — K♠ / 13
1997 Andrew Weinreich
Six Degrees profile uploading service founded.
Rally – All players draw a card.

ARTIFICIAL INTELLIGENCE — K♦ / 13
1943 Walter Pitts & Warren McCulloch
Neural networks as artificial neurons to perform logical functions described.
Cogitate – *Reveal* the top card of the deck. Draw it or *replace* a *neutral* card in play with the revealed card.

INTERNET OF THINGS — A♣

MATERIAL SCIENCES — A♦

ROBOTICS — K♣ / 13
1920 Karel Capek
The play Rossum's Universal Robots (R.U.R.) created.
Automate – *Exchange* a neutral card or a card you control with a card in your hand or card in the discard.

PEER TO PEER SERVICES — K♥ / 13
1999 Shawn Fanning & Sean Parker
Napster for P2P file sharing debuts.
Assist – All players give you a card. Redistribute those cards back to each player. Then, you may draw a card.

Ben Cheung, PhD

🕐 **45-60 min**

👥 **1-6**

👤 **7+**

NUMBER OF PLAYERS 1-6
TIME TO PLAY 45-60 min
AGES 7+ (Addition, Reading)
COMPONENTS 54 cards (The Tech Deck)

THE TECH DECK

Playing cards were created in China during the 9th Century. Playing cards were imported into Europe from Mamluk, Egypt, in 1370. By 1377, the French used playing cards with Hearts, Tiles (diamonds), Clovers (clubs) and Pikes (spades). The Tech Deck introduces a modern version of these classic playing cards bringing them into the 21st century. The Tech Deck was designed with "general" effects. It serves as a platform for many other games.

THE DOMAINS (SUITS) OF THE TECH DECK

There are 4 domains (suits) in the DECK:

KNOWLEDGE (BOOK) INFORMATION TECHNOLOGIES
Knowledge is facts and information accumulated by science. It is the theoretical and practical understanding of a subject foundational to science and technology.

SCIENCE (BEAKER) RESEARCH & DEVELOPMENT
Science is organized knowledge with testable explanations. The natural sciences (biology, chemistry, and physics) study nature. The social sciences (economics, psychology, and sociology) focuses on societies. The formal sciences (logic, mathematics, and computer science) are for abstract concepts.

TECHNOLOGY (GEAR) INDUSTRY, MANUFACTURING
Technology is the application of scientific knowledge for practical purposes. Engineering is the creative application of science and math to the design and construction of machines, systems, and processes.

SERVICES (GLOBE) MARKETING
Services are the integration of knowledge, science and technology to create a product to benefit consumers. Services provide a benefit or product for a customer.

GRID POKER INTRODUCTION

The name *Poker* originated from the Irish *Poca*, the French *Poque*, or German *Pochen*. It may have descended from the Persian *As-Nas*, Renaissance game *Primero*, and French *Brelan*. By 1800, it had spread throughout the Mississippi River region. From there, poker reached the rest of the USA by Mississippi riverboats, and gambling became a common pastime. As it spread West during the Gold Rush, it become a part of the frontier pioneer culture. The full 52-card French deck was adopted, and the flush was introduced. In the American Civil War, many additions and variations were created including, stud poker, and the straight. Other American inventions followed, such as the wild card (1875), lowball, and split-pot poker (1900).

GAME SETUP

1. **3x3 BOARD** – Shuffle the cards. Deal 9 cards face up to the table into three rows of three cards, forming a 3x3 square. This is the *market*. The market cards are *in play*. Market cards are uncontrolled *neutral* cards. (Optional) If playing with 5 or 6 players, it is suggested to use two Tech Decks.
2. **DEAL CARDS TO PLAYERS** – Deal 7 cards to each player.
3. **DECK & DISCARD** – The other cards form a *deck* placed at the side of the board. The discard pile will be next to it.
4. **FIRST PLAYER** – Randomly determine a first player and give them a token to note that they are the first player.
5. **COMPANY** – Starting with the first player, each player creates a company by selecting two cards from their hand and placing them into *play* in front of them. You may describe how the concepts on the two cards could form a company. All players then discard 2 cards from their hand (called *hand cards*) into the discard pile.

PHASES IN A ROUND

Each round is composed of phases. Starting with the first player and going clockwise, each player may:
1. **USE COMPANY EFFECTS PHASE** – Each player may use game effect from one of the cards in their company.
2. **USE HAND CARD EFFECTS PHASE** – Each player may use a game effect from one of their hand cards. Then, discard that card and redraw it afterwards.
3. **GRID POKER PHASE** – Players then form grid poker hands using company and hand cards. The best row & column hands score. Poker hands better than a three-of-a-kind score 2 points. The winners each discard a card from the board replacing them with a card from the top card of the deck face-up. Winning hand cards are redrawn. Losing hand cards may be either returned to hand or discarded and redrawn.
4. **COMPANY IMPROVEMENT PHASE** – You may replace one of your company cards with a hand card.
5. **END OF ROUND PHASE** – The first player marker is passed to the player on the left (clockwise). All players discard down to 4 cards (or 3 cards in a 5-6 player game). If anyone has less than 3 cards in hand, they draw a card.
6. **GAME END CHECK PHASE** – Check for the end of the game. After four rounds, the game ends.

USE COMPANY EFFECTS PHASE

1. **USING COMPANY EFFECTS** – Starting with the player who has the first player marker, each player <u>may</u> choose to use a game effect from <u>one</u> of the cards that comprise their company in play once per turn. Then, the next player may choose to use a company card effect. Company effects are optional. You can keep track of used cards by tilting them.
2. **CHAINING ABILITIES** – Chaining abilities can occur. An ability from one player may create the opportunity for another player to use new game effects. For example, a replaced company card could be used the turn it comes into play. If multiple effects need to be resolved, the active player chooses the order. Effects cannot interrupt another effect in progress.
3. **DECK RUNNING OUT OF CARDS** – If the deck runs out of cards, or a player needs to reveal more cards than are in the deck, resolve as much as possible. Then, shuffle the discard into the deck and perform the rest of the effect. For example, to reveal 4 cards in a deck with only 2 cards, reveal the 2 cards. Shuffle the discard to create a new deck. Then, reveal an additional 2 cards. If there are still not enough cards in the deck to reveal the requested number of cards reveal as many as possible.

USE HAND CARD EFFECTS PHASE

1. **USING HAND CARD EFFECTS** – Starting with the first player, each player <u>may</u> use the game effect from one card in their hand. The player *reveals* the card and corresponding effect they wish to use. Resolve the effect by applying the game text on the revealed card. After resolution, discard the card and draw a new card.
2. **CORNER CASES** – If a game effect has multiple effects, but any of them are unresolvable, do as much as possible. Market and company cards are all *in play*. Game effects include company effects, hand card effects, and game play operations. Game effects last until the end of the round if not specified on the card. It is possible that a company card effect will be used again because of a copy effect from a hand card. Controlled cards are your company cards. Market cards are *neutral* cards. Whenever an effect causes "all players" to do something, the active player starts first. Then, the effect passes to the next player on their left.

GRID POKER (2-Dimensional Poker) PHASE

1. **GRID POKER PHASE** –
1a.   **POKER HANDS** – Company cards and cards in hand are used to make poker hands. Starting with the first player, all players <u>may</u> commit up to two cards from their hand (face-down) by placing them next to either a row or column of cards. Next, starting with the first player, all players <u>may</u> place their two company cards next to a column/row signifying that they will use those cards to form a poker hand. Multiple players may use the <u>same</u> rows and columns. <u>Multiple</u> rows and columns may be used among all players. Players may choose to abstain from using hand cards and/or their company cards to form poker hands. They may still participate in grid poker with only one poker hand formed from either their hand cards or company cards. You may use markers or chips to signify plays.
1b.   **ROW & COLUMN EXCLUSIVITY** – If company cards are used for a poker hand with a row, then hand cards <u>must</u> be used in columns and vice versa. So, if company cards are used in a column, hand cards <u>must</u> be used in rows.
1c.   **REVEAL CARDS** – After all players have placed their cards, player-hand cards are revealed.
1d.   **BEST ROW & BEST COLUMN** – Determine the best poker hand formed from among the rows. Repeat for the columns. The winners score one point for poker hands up to a three-of-a-kind. For hands better than a three-of-a-kind, a player scores two points. The player who won from among the rows discards a *market card* from among the three *market* row cards that were used in the winning hand. Then, the player who won among the column poker hands notes that he scores one or two point(s). Then, he discards a *market card* from among the market cards used in their winning hand. When making hands, the physical position of the cards do not matter (for poker-straight purposes).
1e.   **RETURN OR REDRAW CARDS** – All the players who did not win in grid poker with their hand cards may either return them back to their hand or discard and redraw two new cards. The player(s) who won in grid poker with hand cards, either along a row or column, <u>must</u> discard their two hand cards that they used to win with. Then, they draw two new cards from the deck into their hand. Company cards are <u>not</u> discarded if they win a poker hand.
1f.   **REPLACE SCORED MARKET CARDS** – Then, replace the discarded *market cards* with cards from the top of the deck. If necessary, shuffle the discard pile to form a new deck to replace discarded *market* cards.

COMPANY IMPROVEMENT PHASE

1. **COMPANY IMPROVEMENT** – Starting with the first player, each player may replace a card in their company with a card in their hand. Discard the old company card that was replaced. If your company has only one card in it, you add a second company card without replacing a company card. You do <u>**NOT**</u> replace your hand card that was used to upgrade your company.

END OF ROUND PHASE

1. **DISCARD** – All players discard down to 4 cards (or 3 cards in a 5-6 player game).
2. **DRAW IF LESS THAN 3 CARDS** – If any player has fewer than 3 cards in hand, they draw a card.
3. **GAME END CHECK** – After the fourth round, the game ends.
4. **PASS FIRST PLAYER MARKER** – The first player marker is passed to the next player to the left (clockwise).

GENERAL RULES

1. **RESHUFFLE** – If a game effect requires you to draw or reveal card(s) and there are not enough cards in the deck to do so, shuffle the discard pile with what is left of the deck to form a new deck.
2. **GROUP TALK & DEALS** – You can make deals. However, you may <u>not</u> trade cards or company cards.
3. **LOOKING AT PILES** – Any player may look through the discard. This is public information.
4. **REVEALING** – To reveal card(s), expose the card(s) for all to see. Then, the cards are returned from where they came, preserving the order that they had. A player who looks at a card *may* choose to divulge the information.
5. **EXPELING** – A card that is expelled is removed from the game.
6. **EXCHANGING** – Exchanging two cards causes them to swap places with each other. For example, exchanging from the top of the deck with a card in hand causes the top card of the deck to change places with a card from hand.
7. **(OPTIONAL) BIDDING** – Similar to traditional poker, you may have a bidding round before revealing cards.

SOLO PLAY

To play solo, setup the game for yourself as normal. Then, create a company for an artificial player. They do not play game effects from their hand nor their company. During grid poker draw 3 cards from the top of the deck and use two of them to create poker hands for the artificial player scoring as usual. If they win at grid poker, they discard a random card in the row/column.

REGULAR POKER WITH THE TECH DECK

Poker and its variations can be played using the Tech Deck. The only extra rule is that each turn, a player may reveal a card from their hand and perform the effect specified on the card. Then, discard and redraw that card.

STRATEGY TIPS FOR GRID POKER

1. When forming your company, either consider choosing cards with abilities that will be useful or consider cards with synergistic values & suits that will be good in grid poker.
2. Pay attention to the Grid poker hands that your opponent's companies can form. This might influence how you use your hand cards in making grid poker hands.
3. The player company effects are important. Try to find company card abilities that will be useful turn after turn.
4. When selecting a card that you will discard after you win at Grid poker, consider what cards you will be leaving on the table, and what opportunities your opponents can still capitalize on.
5. The information-domain card effects typically relate to drawing, revealing and arranging cards. The science cards pertain to "tricks" that affect the game state or discard pile. The technology cards often have copy effects. The service cards focus on effects that relate to multiple players.

TERMS & DEFINITIONS

1. **CARD** – An individual card which has a value, a domain (suit) and a game effect.
2. **DISCARD** – Discarded cards go to the discard.
3. **DOMAIN** – One of the four suits in the game (information, technology, science, services).
4. (Domain symbols) – The four domain symbols are equivalent to suits.
5. **EXCHANGING** – Exchanging two cards causes two cards to swap places putting one where the other card was.
6. **EXPEL** – A card that is expelled is permanently removed from the game.
7. **PICK** – The act of selecting something (a player, card, company).
8. **PHASE** – One of the parts of a round.
9. **ROUND** – A complete set of operations performed by all the player(s). It is composed of phases. The game is played in a series of rounds.
10. **SUIT** – A term used inter-changeably with domain. The traditional suits (club, heart, spade, diamond) are also printed on the cards in the Tech Deck to help you acclimate to domains.
11. **PLAYER COMPANY** – These are the card(s) that represent a company.
12. **WILD CARD** – A wild card is a card has a value and domain chosen when used as a hand card in grid poker, then it is *expelled*. A Wild card used as a company card has no game effect, and when used in grid poker is *expelled*.

GAME OVERVIEW & LAYOUT

First player marker

Player 1

Player 2

Player 2's hand cards. Start the game with 3 cards. Players may use a game effect of one hand card per turn.

Player 2 Company
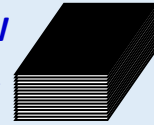
Player 1 Company

Once per turn, players can play game effects on one of their company cards. At game start, companies are comprised of two cards.

Game starts with a 3x3 grid of face-up market cards. These uncontrolled cards are *neutral* and *in play*.

The Market

DRAW DECK

DISCARD PILE

At the start of the game, each player will discard 2 cards. So, with 4-players, the discard will start with 8 cards.

Player 3 Company

Player 4

Player 4 Company

Player 3

GRID POKER PHASE & SCORING

Player 1

Player 1 reveals a 9-science & 9-info in his hand forming a 4-of-a-kind in the middle column. He scores 2 points because it is better than a 3-of-a-kind. Winning hand cards are discarded and redrawn.

Player 1 wins the grid poker hand in columns and discards a market card used in his winning hand. He notes that he scores TWO points.

Player 1 Company

Player 1 uses the two cards of his company with the three market cards in the top row to make a poker hand of one pair: a pair of 5s with the 12-science kicker.

Company cards and cards in hand make poker hands on either rows or columns. If company cards are used in a row, then cards in hand must be used in columns and vice versa.

Player 1's four-of-a-kind is the best column hand. Because his poker hand is better than a 3-of-a-kind he scores 2 points. He decides to replace the 12-technology with a card from the deck. The winner discards and redraws hand cards. Non-winning hand cards are either returned or redrawn.
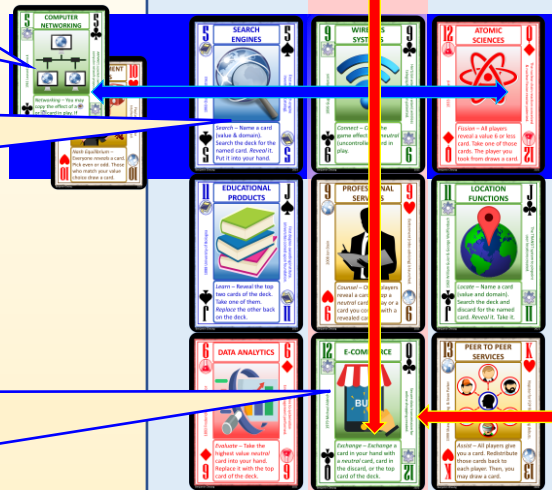
DISCARD

The Market

5

ORDER RANK OF HANDS (POKER RANKS)

HIGH CARD

You have none of the other hands, the highest value card wins. To breaks ties if two people have the same high card, use suit ordering: Service (Highest), Tech, Science, Information (lowest)

PAIR

Two cards of the same kind, for example, two fives. Ties are first broken on value of the pair. Then, the highest value card(s) from the rest of the hand are used to break ties.

TWO PAIR

Two sets of two cards of the same value. For example, two sixes and two eights. The hand is completed with another (kicker) card. Ties are broken on value of the pairs, kicker then domain.

THREE OF A KIND

Three cards of the same value. For example, three sevens. The hand is completed with two other cards. Ties are broken on the value of the three matching cards.

STRAIGHT

A series of five cards in ascending numerical order. The cards can be of different domains (suits). For example, a five through nine. Ties are broken with the highest card in the straight.

FLUSH

Five cards that are all the same suit. The value on the cards is only used to break ties. On a tie, the highest value card wins.

FULL HOUSE

A combination of a three of a kind with a pair. The full house hand that has the highest three of a kind card wins amongst other full houses.

FOUR OF A KIND

Four of the same value card. The hand is completed with another indifferent card. Ties are broken on the value of the matching cards.

STRAIGHT FLUSH

Five consecutive cards that all share the same domain (suit). This is similar to a straight, but the cards share the same domain.

ROYAL FLUSH

A straight flush with numerical values from 9 to 13.

FOR MORE INFORMATION

See the Boardgamegeek.com entry, Youtube.com (Walk-through videos), or visit cheung.interzone.com

CREDITS

DOMAINS (SUITS):

There are four suits in the game that are referred to as domains (information, technology, science, services). The four domain symbols are: 🧪🌐⚙️🗄️

GAME SETUP:

1. **3x3 BOARD** – Shuffle the cards. Deal 9 cards face up to the table into three rows of three cards forming a 3x3 square. This is the *market*. Market are cards *in play*. Market cards are uncontrolled *Neutral* cards. (Optional) If playing with 5 or 6 players, it is suggested to use two Tech Decks.
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PHASES IN A ROUND:

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3. **DECK RUNNING OUT OF CARDS** – If the deck runs out of cards, or a player needs to reveal more cards than are in the deck, resolve as much as possible. Then, shuffle the discard into the deck and perform the rest of the effect. For example, to reveal 4 cards in a deck with only 2 cards, reveal the 2 cards. Shuffle the discard to create a new deck. Then, reveal an additional 2 cards. If there are still not enough cards in the deck to reveal the requested number of cards reveal as many as possible.

USE HAND CARD EFFECTS:

1. **USING HAND CARD EFFECTS** – Starting with the first player, each player <u>may</u> use the game effect from one card in their hand. The player *reveals* the card and corresponding effect they wish to use. Resolve the effect by applying the game text on the revealed card. After resolution, discard the card and draw a new card.
2. **CORNER CASES** – If a game effect has multiple effects, but any of them are unresolvable, do as much as possible. Market and company cards are all *in play*. Game effects include company effects, hand card effects, and game play operations. Game effects last until the end of the round if not specified on the card. It is possible that a company card effect will be used again because of a copy effect from a hand card. Controlled cards are your company cards. Market cards are *neutral* cards. Whenever an effect causes "all players" to do something, the active player starts first. Then, the effect passes to the next player on their left.

GRID POKER PHASE:

1. GRID POKER PHASE –

1a. **POKER HANDS** – Company cards and cards in hand are used to make poker hands. Starting with the first player, all players <u>may</u> commit up to two cards from their hand (face-down) by placing them next to either a row or column of cards. Next, starting with the first player, all players <u>may</u> place their two company cards next to a column/row signifying that they will use those cards to form a poker hand. Multiple players may use the <u>same</u> rows and columns. <u>Multiple</u> rows and columns may be used among all players. Players may choose to abstain from using hand cards and/or their company cards to form poker hands. They may still participate in grid poker with only one poker hand formed from either their hand cards or company cards. You may use markers or chips to signify plays.

1b. **ROW & COLUMN EXCLUSIVITY** – If company cards are used for a poker hand with a row, then hand cards <u>must</u> be used in columns and vice versa. So, if company cards are used in a column, hand cards <u>must</u> be used in rows.

1c. **REVEAL CARDS** – After all players have placed their cards, player-hand cards are revealed.

1d. **BEST ROW & BEST COLUMN** – Determine the best poker hand formed from among the rows. Repeat for the columns. The winners score one point for poker hands up to a three-of-a-kind. For hands better than a three-of-a-kind, a player scores two points 🏆. The player who won from among the rows discards a *market card* from among the three *market* row cards that were used in the winning hand. Then, the player who won among the column poker hands notes that he scores one or two point(s). Then, he discards a *market card* from among the market cards used in their winning hand. When making hands, the physical position of the cards do not matter (for poker-straight purposes).

1e. **REPLACE SCORED MARKET CARDS** – Then, replace the discarded *market* cards with cards from the top of the deck. If necessary, shuffle the discard pile to form a new deck to replace discarded *market* cards.

1f. **RETURN OR REDRAW CARDS** – Players who did not win at grid poker with hand cards either return their hand cards back to their hand or discard and redraw them. Player(s) who won in grid poker either in a row or column discard their two hand cards and draw two new cards from the deck. Company cards are **not** discarded if they win a poker hand.

COMPANY IMPROVEMENT PHASE:

COMPANY IMPROVEMENT – Starting with the first player, each player may replace one of the two cards in their company with a card in their hand. Discard the old company card that was replaced. If your company has only one card in it, you add a second company card without replacing a company card. You do **NOT** replace your hand card that was used to upgrade your company.

END OF ROUND PHASE:

1. DISCARD – All players discard down to 4 cards (or 3 cards in a 5-6 player game).

2. DRAW IF LESS THAN 3 CARDS – If any player has less than three cards in hand, they draw a card.

3. GAME END CHECK – After the fourth round, the game ends.

4. PASS FIRST PLAYER MARKER – The first player marker is passed to the next player to the left (clockwise).

GENERAL RULES:

1. RESHUFFLE – If a game effect requires you to draw or reveal card(s) and there are not enough cards in the deck to do so, shuffle the discard pile with what is left of the deck to form a new deck.

2. GROUP TALK & DEALS – You can make deals and negotiations on playing game effects or assisting each other. However, you may <u>not</u> trade cards or company cards.

3. LOOKING AT PILES – Any player may look through the discard. This is public information.

4. REVEALING – When you reveal a card, turn them over and expose the card(s) for all players to see. After game effects resolve, the revealed cards are returned from where they came, preserving the order that they had. If a card allows you to look at something (not *reveal* to all players), a player may choose to divulge the information. A *revealed* card is turn over long enough for all players to acknowledge they saw card, but does it not have to be revealed again later.

5. EXPELING – A card that is expelled is removed from the game.

6. EXCHANGING – Exchanging two cards causes two cards to swap places putting each where the other card was. For example, exchanging from the top of the deck with a card in hand would cause the top card of the deck to change places with a card from hand.

7. (OPTIONAL) BIDDING – Similar to traditional poker, you may have a bidding round before revealing cards.

RANK OF POKER HANDS:

The rank of poker hands are: High Card (lowest), One Pair, Two Pair, Three of a Kind, Straight (numerical sequence), Flush (matching domains), Full House (3 of a kind & a pair), Four of a Kind, Straight Flush, Royal Flush (highest)

CREDITS:

Designer, Developer   Benjamin Cheung

Play Testers   Steven O. Chew, Clifton Field, Rich Kopacz, Kenji Kaneshiro, Eugene Ku, Vincent Mondaro, Lillian Mondaro, Pedro Ortiz, Andrew Sackett, Henry Young