TECH EXCHANGE
REAL-TIME TRADING

THE TECH DECK©

Ben Cheung, PhD

60 min

2-6

7+

NUMBER OF PLAYERS 2-4, 5-6 with two Tech Decks
TIME TO PLAY 60 min
AGES 7+ (Addition, Reading)
COMPONENTS 54 cards (The Tech Deck)

THE TECH DECK

Playing cards were created in China in the 9th Century with printing. In 1370, cards came to Europe from Mamluk, Egypt. By 1377, the French used cards with Hearts, Tiles (diamonds), Clovers (clubs) and Pikes (spades). The Tech Deck introduces a modern version of classic playing cards bringing them into the 21st century. The Tech Deck supports any game you could play with classic playing cards and introduces card effects to spice up any game. It is a game platform.

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) NON-GOODS INDUSTRIES, PUBLIC & PROFESSIONAL SERVICES
Services are the integration of knowledge, science and technology to create products to benefit consumers. Service industries include communications, retailing, professional services, and government services.

MARKET EXCHANGES – INTRODUCTION

In 1409, at the market square with the Van der Beurze Inn, traders gathered in the "Brugse Beurse" to exchange commodities. In the 13th and 14th century bankers traded in government securities. In 1602, the Dutch East India Company was the first joint-stock company to get a fixed capital stock. As a result, continuous trade in company stocks first occurred on the Amsterdam Exchange. Eventually, trade in derivatives including options and repos sprung up on the Amsterdam Market. Today, stock markets in nearly every developed and developing economy trade shares and commodities between nations. Stock markets allow companies to raise capital. Exchanges act as a clearinghouse for transactions because they collect and deliver shares and guarantee payment to the seller of sold securities.

GAME SETUP

1 **THE STOCK MARKET** – Take out the four 1-value cards (data mining, material sciences, internet of things, e-commerce) from the Tech Deck and put them into play. Each card starts its own stock stack each representing a different domain (knowledge, science, technology, and services). Together, these represent the stock market.

2 **DEAL CARDS TO PLAYERS** – Shuffle the Tech Deck and deal 8 cards to each player. If playing a 2-player game, deal 10 cards to each player instead. If playing with 5-6 players, two Tech Decks need to be used.

3 **DECK & DISCARD** – The other cards form a *deck* placed next to the stock market. Tilt the bottom 5 cards of the deck as these will indicate when trading must stop. The discard pile will be next to it.

4 **FIRST PLAYER** – Randomly determine a first player and give them a token to denote they are the first player.

PHASES IN A ROUND (SUMMARY)

Each round is composed of the following phases:

FIRST TRADING PHASE – The players exchange cards between each other in real-time trying to form triples, quadruples and one flush. Players pause trading when any stock stack hits a value of three or if no one wishes to trade anymore.

FIRST USE CARDS EFFECTS PHASE – Starting with the first player, all the players may use a game effect from one of their cards. The first two players to use effects puts a card matching its domain into the stock stacks from the deck.

SECOND TRADING PHASE – The players continue exchanging cards until trading ends.

SECOND USE CARD EFFECTS PHASE – Starting with the first player, each player may use a game effect from one of the cards in their hand and then redraws that card. The first two players to use effects puts a card into the stock stacks.
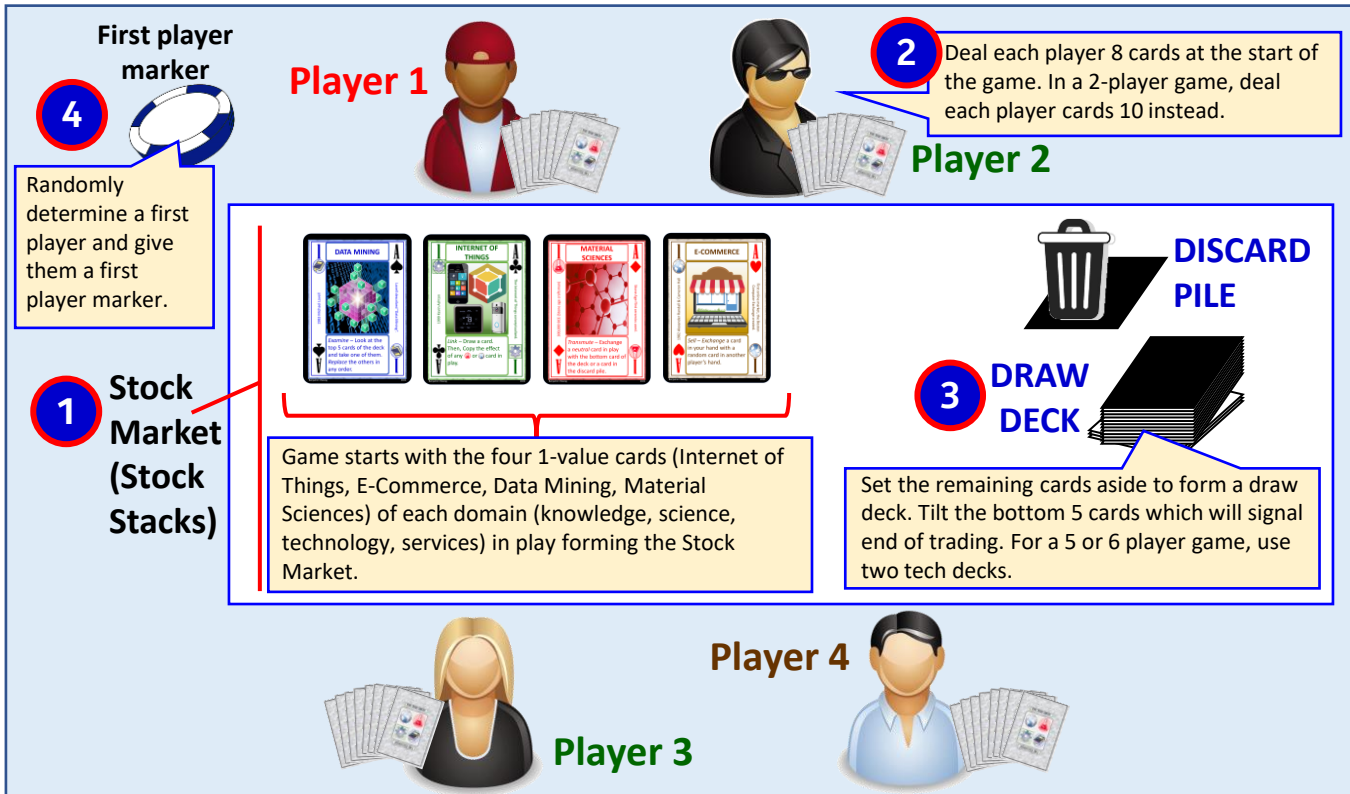
REVEAL & SCORE PHASE – Determine the player with the lowest number of cards in their hand. All players discard down to that number then reveals their hands. Players score their hands.

RESET PHASE – Take the 1-value cards to form four new stock decks like at the start of the game. Shuffle all other cards and deal 8 cards to each player. Deal 10 cards in a 2-player game. Place the new deck by the side of the stock market.

GAME END CHECK PHASE – The game ends after three rounds. Pass the first player marker left to the next player.

TECH EXCHANGE GAME SETUP

The following diagram illustrates the setup for Tech Exchange:

First player marker

4 Randomly determine a first player and give them a first player marker.

Player 1

Player 2

2 Deal each player 8 cards at the start of the game. In a 2-player game, deal each player cards 10 instead.

DISCARD PILE

DRAW DECK

1 **Stock Market (Stock Stacks)**

Game starts with the four 1-value cards (Internet of Things, E-Commerce, Data Mining, Material Sciences) of each domain (knowledge, science, technology, services) in play forming the Stock Market.

3 Set the remaining cards aside to form a draw deck. Tilt the bottom 5 cards which will signal end of trading. For a 5 or 6 player game, use two tech decks.

Cards shown: DATA MINING, INTERNET OF THINGS, MATERIAL SCIENCES, E-COMMERCE

Player 3

Player 4

FIRST & SECOND TRADING PHASE RULES

TRADING RULES – Two players trade one or two cards between each other. They offer one or two cards to receive one or two cards in return. All players trade simultaneously in real-time. For example, a player may say: "I will offer my 7-science and 4-knowledge for your 2-information and 11-service." After each successful trade, reveal the top card of the deck and place it in the stock stack of the corresponding domain.

VERBAL NEGOTIATION – Any kind of verbal negotiation is allowed so long as offers and executions follow the other trade rules. Players may willingly offer any information truthfully about their hands if they wish.

EXECUTING AN TRADE – If another player accepts the offer, satisfies the conditions, and places their cards on the table, the trade is committed, must be *executed* and cannot be canceled.

CANCELING AN OFFER – Anytime before the trade has been committed, a player may cancel the trade and pull back their cards into their hand.

TRADES ARE NOT MANDATORY – If a player describes an offer and request, and another player has the cards requested for, they are not forced to trade. For example, if a player says, "I have a 5-Tech and I want a 13-Science". The player holding the 13-Science is not forced to trade. They *may* respond, "I am not interested in that trade."

FISHING FOR INFORMATION – It is legal to "fish" for information through offers. If a player chooses to respond to a question, they must answer truthfully. For example, a player says, "I have a Service card to offer, I am looking for a 7-value card". The player may just want to know who has a 7 in their hand. However, if someone puts a 7-value card on the table, the trade is committed and must be *executed*.

SIMULTANEOUS EXECUTIONS – If more than one player wishes to accept another player's offer, whoever can get their trade cards on the table first will execute the exchange. If two players simultaneously commit their trade cards, the player making the offer can choose which player to complete the exchange with.

MISTAKES – If a trade was made, but an incorrect card not matching the offer/request completed, then the trade is aborted and both players return their original cards back to their hands.

THREE-WAY TRADES – Three-way trades are executed as two pair-wise trades.

END OF TRADING – Trading ends when: (a) no one wants to make any more trades, (b) when no offered trades are being accepted by anyone or, (c) If there are only 5 cards left in the combined draw deck & discard or 1 card left in a 4-player game.

ANNOUNCING END OF TRADING – During trading, any player may announce that they are done trading. However, they may come back and continue trading later as long as trading has not finally completed. The changing stock market may create situations where a player wishes continue trading again.

Player 1

Player 2

"I need a 13-value, or a 6-value card does anyone have either of those?"

I do not have a 6. However, I have a 13. I am looking for a 4-value card or a service-domain card.

"Okay, I will offer a 4-value science card for any 13-value card"

Player 1 and Player 2 have negotiated a trade acceptable to each of them. Player 1 puts his 13-value card on the table and Player 2 puts her 4-value card down to commit and execute the trade.
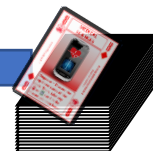
Stock Market (Stock Stacks)

DISCARD PILE

DRAW DECK

After the successful trade between Player 1 and Player 2, the top card of the draw deck is revealed (8-Science) and is placed in the science stock stack increasing its value to two.

FIRST AND SECOND USE CARD EFFECTS PHASE RULES

USING CARD 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 in their hand. The player *reveals* the card and resolves the game effect on it. After resolving the effect, for the <u>first two</u> players to use game effects, reveal the top card of the deck and put it face up on the stock stack of the matching domain. Then, discard the card that was used and redraw a new card from the deck.

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.

CORNER CASES – If a game effect has multiple effects, but any of them are unresolvable, do as much as possible. Stock market cards are all *in play* and *neutral*. Game effects last until the end of the round if not specified on the card. It is possible that a game card effect will be used again because of a copy effect from a hand card. 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.

REPLACE & EXCHANGE GAME EFFECTS – Some game effects replace or exchange neutral cards. If such an effect results in a card not matching its stock stack domain, then move it to the appropriate domain. <u>For example</u>, the 13-Science (AI) card effect replaces a neutral card in play with the top card of the deck. A player replaces a card in the technology stock stack from the top of the deck. If that was a science card, move it to the science stock stack.

WILD CARDS – When a wild card is drawn, reveal it and place it into the stock stack of the drawing player's choice. Then, draw a card from the deck. If a wild is taken into hand, replace it into a stock stack. Wild cards are not expelled.

REVEAL AND SCORE PHASE

REVEAL AND SCORE – Determine the player with the lowest number of cards in their hand. All players discard down to that number then reveal their hands. Players arrange their hands into groupings of triples (three of a kind), quadruples (four of a kind), and up to one flush (cards sharing the same domain) of 3 or 4 cards. For each group, pick a domain from among cards in the group. Multiply: (number of cards in the stock stack of the selected domain) x (the number of cards in the group) = (score that many points). Repeat for each grouping. For example, for a 9-value triple (9-knowledge, 9-science, 9-technology). A player picks the knowledge domain stock stack which has 4 cards in it. He scores 4(multiplier) x 3(triple) = 12 points for that grouping. That player repeats for the other groups in their hand.

TECH EXCHANGE SCORING EXAMPLE

The following diagram illustrates how scoring is done:

Player 1's hand

Group 1 in Player 1's hand is a three of a kind (triple) of 9-value cards.

Group 2 are three cards that form a _flush_ (all cards sharing the same domain).

Group 3 in Player 1's hand is a four of a kind (quadruple) of 4-value cards.

A triple of knowledge, science, technology, with multipliers of 4x, 3x, 2x. He chooses to use the knowledge multiplier (4x). He scores 4 (multiplier) x 3(# of cards in group 3) = 12 points.

The _flush_ is all service cards which have a 2x multiplier (the number of cards in the service stock stack). So, he scores 2(multiplier) x 3(# of group 2 cards) = 6 points.

It has cards of all domains. The knowledge stock has the highest multiplier (4x). So, (multiplier) x (#cards)= 4x4 = 16. He scores 16 points for this group of cards.

Knowledge Stock Stack Multiplier

Stock Market (Stock Stacks)

After 6 trades, no player wished to make any more trades and no more trades were being accepted by anyone. Trading has stopped. The resulting stock market has four cards in the knowledge stock stack, two in the technology stock stack, three in the science stock stack and two cards in the service stock stack.

RESET PHASE & GAME END CHECK PHASE

RESET – Take the 1-value cards to form four new stock decks like at the start of the game. Shuffle all other cards and deal 8 cards to each player. If playing a 2-player game, deal 10 cards to each player instead. Place the new deck by the side of the stock market.

GAME END CHECK – After three rounds, the game ends. Whoever has the most points wins. In the case of a tie the victory is shared.

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

GENERAL RULES

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.

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

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.

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

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.

REPLACE – To replace a card, discard it and put the replacing card in its place.

REGULAR CARD GAMES WITH THE TECH DECK

Poker and other card games 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.

STRATEGY TIPS FOR TECH EXCHANGE

GAME EFFECTS – Before you begin trading, look at the game effects of the cards in your hand. You may wish to hold onto cards with useful effects to you even though their value/domain are not as useful to you.

TRADES – Pay attention to trades: it helps you learn cards that people have which helps you create useful offers.

PRIORITIZE – Trading happens in real-time. So, you may wish to prioritize your trades. Open with your most important offers.

DOMAIN EFFECTS – 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

DISCARD – Discarded cards go to the discard.

DOMAIN – One of the four suits in the game (information, technology, science, services).

🧪🌐⚙️💳 **(Domain symbols)** – The four domain symbols are equivalent to suits.

EXCHANGING – Exchanging two cards causes two cards to swap places putting one where the other card was.

PICK – The act of selecting something (a player, card, company).

PHASE – One of the parts of a round.

ROUND – A complete set of operations composed of phases. The game is played in a series of rounds.

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.

FOR MORE INFORMATION

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

OTHER GAMES WITH THE TECH DECK

Be sure to check out Tech Grid Poker and Tech City, which are other games designed to be used with the Tech Deck
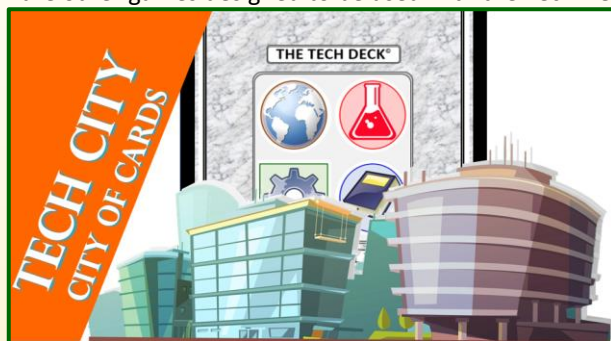
CREDITS

Designer, Developer	Benjamin Cheung
Play Testers	Steven O. Chew, Clifton Field, Kenji B. Kaneshiro, Rich Kopacz, Eugene Ku, Vincent Mondaro, Lillian Mondaro, Pedro T. Ortiz, Henry K. Young

TECH EXCHANGE 1-PAGE RULES SUMMARY

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