

ΕΘΝΙΚΟ ΜΕΤΣΟΒΙΟ ΠΟΛΥΤΕΧΝΕΙΟ

Σχολή Ηλεκτρολόγων Μηχανικών & Μηχανικών Υπολογιστών

Εργαστήριο Διοίκησης Πληροφοριακών Συστημάτων

Διοικήση Ψηφιακής Επιχειρήσης

8º EEAMHNO

ΔΙΔΑΣΚΟΝΤΕΣ:

ΚΑΘΗΓΗΤΗΣ ΓΡ. ΜΕΝΤΖΑΣ

Υπεύθυνη Άσκησης: Ξ. Παπαδομιχελάκη

email: xpg@central.ntua.gr

Ιούνιος 2023

EPΓΑΣΙΑ 4 ANAZHTHΣΗ KAI RECOMMENDER SYSTEMS

1. ANAZHTHΣH - TFIDF

Υποθέστε ότι πραγματοποιείτε μια αναζήτηση σε μια μηχανή αναζήτησης με τους όρους "earth, mission, astro". Θεωρείστε σαν μοναδικά δεδομένα της μηχανής τις παρακάτω περιγραφές ταινιών.

α. Χρησιμοποιείστε τη μετρική TF-IDF (χωρίς TF normalization) για να βρείτε ποια θα είναι η κατάταξη των αποτελεσμάτων. Να χρησιμοποιηθεί Cosine Similarity και να ληφθούν υπόψη το κείμενο των τίτλων και οι παράγωγες/σύνθετες λέξεις (Stemming). Σχολιάστε τα αποτελέσματα.

Europa Report (2013)

PG-13 | 1h 30min | Drama, Mystery, Sci-Fi

A unique blend of documentary, alternative history and science fiction thriller, EUROPA REPORT follows a contemporary mission to Jupiter's moon Europa to investigate the possible existence of alien life within our solar system. When unmanned probes suggest that a hidden ocean could exist underneath Europa's icy surface and may contain single-celled life, Europa Ventures, a privately funded space exploration company, sends six of the best astronauts from around the world to confirm the data and explore the revolutionary discoveries that may lie in the Europan ocean.

The Hitchhiker's Guide to the Galaxy (2005)

PG | 1h 49min | Adventure, Comedy, Sci-Fi

Earthman Arthur Dent is having a very bad day. His house is about to be bulldozed, he discovers that his best friend is an alien and to top things off, Planet Earth is about to be demolished to make way for a hyperspace bypass. Arthur's only chance for survival: hitch a ride on a passing spacecraft. For the novice space traveler, the greatest adventure in the universe begins when the world ends. Arthur sets out on a journey in which he finds that nothing is as it seems: he learns that a towel is just the most useful thing in the universe, finds the meaning of life, and discovers that everything he needs to know can be found in one book: The Hitchhiker's Guide to the Galaxy.

The Martian (2015)

PG-13 | 2h 24min | Adventure, Drama, Sci-Fi

During a manned mission to Mars, Astronaut Mark Watney (Matt Damon) is presumed dead after a fierce storm and left behind by his crew. But Watney has survived and finds himself stranded and alone on the hostile planet. With only meager supplies, he must draw upon his ingenuity, wit and spirit to subsist and find a way to signal to Earth that he is alive. Millions of miles away, NASA and a team of international scientists work tirelessly to bring "the Martian" home, while his crewmates concurrently plot a daring, if not impossible rescue mission.

Interstellar (2014)

PG-13 | 2h 49min | Adventure, Drama, Sci-Fi

In the near future around the American Midwest, Cooper an ex-science engineer and pilot, is tied to his farming land with his daughter Murph and son Tom. As devastating sandstorms ravage earths crops, the people of Earth realize their life here is coming to an end as food begins to run out. Eventually stumbling upon a NASA base near Cooper's home, he is asked to go on a daring mission with a few other scientists into a wormhole because of Cooper's scientific intellect and ability to pilot aircraft unlike the other crew members. In order to find a new home while Earth decays, Cooper must decide to either stay, or risk never seeing his children again in order to save the human race by finding another habitable planet.

Elysium (2013)

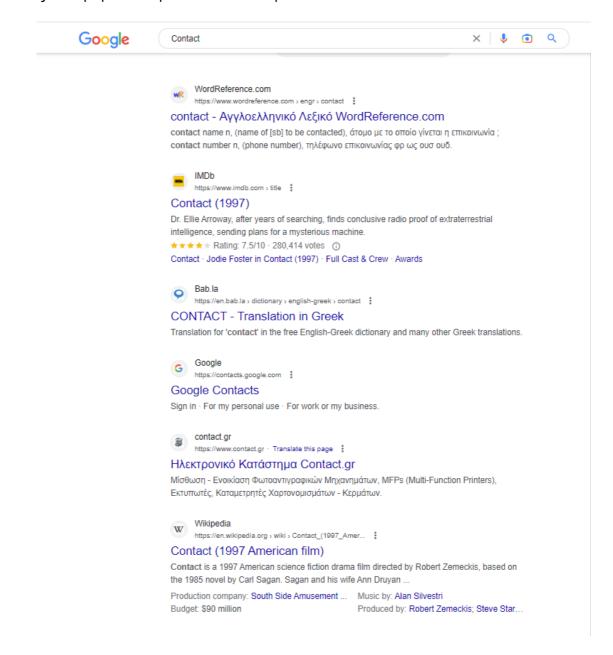
ΕΡΕΡΕΙΕΙΑΝ ΣΥΣΤΗΜΑΤΩΝ

www.imu.ntua.gr

In the year 2154, two classes of people exist: the very wealthy, who live on a pristine manmade space station called Elysium, and the rest, who live on an overpopulated, ruined Earth. The people of Earth are desperate to escape the planet's crime and poverty, and they critically need the state-of-the-art medical care available on Elysium - but some in Elysium will stop at nothing to enforce anti-immigration laws and preserve their citizens' luxurious lifestyle. The only man with the chance bring equality to these worlds is Max (Matt Damon), an ordinary guy in desperate need to get to Elysium. With his life hanging in the balance, he reluctantly takes on a dangerous mission - one that pits him against Elysium's Secretary Delacourt (Jodie Foster) and her hard-line forces - but if he succeeds, he could save not only his own life, but millions of people on Earth as well.

2. ANAZHTHΣH-PRECISION/RECALL

Ενώ ψάχνετε στοιχεία σχετικά με την ταινία «Contact», η μηχανή αναζήτησης "Google" σας επιστρέφει τα παρακάτω αποτελέσματα.



Cambridge University Press & Assessment https://dictionary.cambridge.org > dictionary > contact 📑 CONTACT | English meaning - Cambridge Dictionary contact noun (COMMUNICATION) ... communication with someone, especially by speaking or writing to them regularly: "Have you been in contact with Andrew recently?" ... Collins Dictionary https://www.collinsdictionary.com > dictionary > contact

Contact definition and meaning | Collins English Dictionary

contact in American English - 1, the act or state of touching; a touching or meeting, as of two things or people \cdot 2. immediate proximity or association \cdot 3. an .

Google
https://play.google.com > store > apps > details > id=c...

Contacts - Apps on Google Play

Back up your contacts and sync them across all your devices • Safely back up the contacts in your Google Account to the cloud . Access the contacts in your .

* ★ ★ ★ ★ Rating: 4.3 · 1,129,352 votes · Free · Android · Communication ①

Rotten Tomatoes

https://www.rottentomatoes.com > 1078021-contact

Contact

In this Zemeckis-directed adaptation of the Carl Sagan novel, Dr. Ellie Arroway (Jodie Foster) races to interpret a possible message originating from the ...

* * * * * * Rating: 68% · 68 votes (i)

Dictionary.com

Contact Definition & Meaning

contact · the act or state of touching; a touching or meeting, as of two things or people. immediate proximity or association. \cdot an acquaintance, colleague, or ...

Merriam-Webster

Contact Definition & Meaning

Mar 29, 2023 — The meaning of CONTACT is union or junction of surfaces. How to use contact in a sentence. Is contact a verb?: Usage Guide.

YouTube

Contact (1997) Trailer #1 | Movieclips Classic Trailers - YouTube



Check out the official Contact (1997) trailer starring Jodie Foster! Let us know what you think in the comments below.

YouTube · Rotten Tomatoes Classic Trailers · May 1, 2020

YouTube w.youtube.com > watch :

Kelela - Contact (Official Music Video) - YouTube



Kelela - Contact (Official Music Video)https://www.kelela.co/From the sophomore album 'RAVEN' out now via WARP.

YouTube - Kelela - Jan 19, 2023



VerbEdit · (transitive, occasionally proscribed) To touch; to come into physical contact with. The side of the car contacted the pedestrian. (transitive, .

citycontact.gr

contact.gr · Translate this page -City Contact

Η City Contact ιδρύθηκε το 1998 με σκοπό να παρέχει έντυπη πληροφόρηση στους επισκέπτες, Έλληνες και ξένους, των μεγάλων ξενοδοχείων της χώρας μας.



Contacts Help

Official Contacts Help Center where you can find tips and tutorials on using Contacts and other answers to frequently asked questions

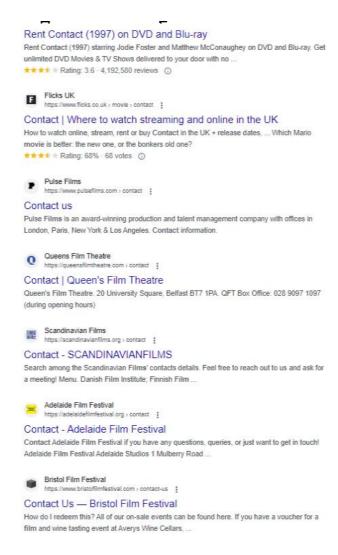
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- α. Ποια αποτελέσματα αναφέρονται στην ταινία και ποια όχι; Εξηγήστε με συντομία. Ποια από τα αποτελέσματα είναι σωστά(true positive) και ποια λάθος (false positive);
- β. Αν γνωρίζουμε ότι υπάρχουν ακόμη 450 αποτελέσματα που σχετίζονται με την ταινία και δεν βρέθηκαν false negative υπολογίστε τα παρακάτω
 - i. Precision
 - ii. Recall
 - iii. F-Measure

Σχολιάστε τα αποτελέσματα.

3. RECOMMENDER SYSTEMS

Έξι άνθρωποι αξιολόγησαν τις ταινίες του ερωτήματος 1 με βαθμολογία από 1 (καθόλου καλή) έως 10 (εξαιρετική) και τα αποτελέσματα φαίνονται στον παρακάτω πίνακα. Αντικαταστήστε όπου Χ τον τελευταίο ψηφίο του Αριθμού Μητρώου σας, αφού προσθέσετε 1

	Sunshine	The Martian	Moon	Contact	Gattaca
Χρήστης 1	X	3		7	7
Χρήστης 2	7	1		2	5
Χρήστης 3	8	2	4	2	X
Χρήστης 4	3	3	2	7	3
Χρήστης 5		3	X	7	6
Χρήστης 6	9	4	5	4	9

- a. Υπολογίστε την ομοιότητα (similarity) μεταξύ των 6 χρηστών χρησιμοποιώντας δυο μεθόδους: Ευκλείδεια απόσταση και Pearson Correlation.
- b. Χρησιμοποιώντας K-Nearest Neighbors με k=2 και weighted average και με τις δύο μετρικές του ερωτήματος i. υπολογίστε πως περιμένουμε να αξιολογήσει την ταινία **Moon** ο χρήστης ii. Σχολιάστε τα αποτελέσματα.
- c. Αν υποθέσουμε ότι χρησιμοποιούμε τις προτιμήσεις των χρηστών στις ταινίες για να προτείνουμε φίλους, τότε ποιες σχέσεις σας φαίνονται πιο πιθανές; Εξηγήστε.

ΕΡΓΑΣΙΑ 1: ΔΗΜΙΟΥΡΓΙΑ Ε-SHOP