Resources on Cases and Data Sets

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INFORMS Resources

INFORMS Transactions on Education (ITE) Case Studies

https://pubsonline.informs.org/journal/ited

The INFORMS Transactions on Education (ITE) journal currently provides a plethora of case studies. All cases are accompanied by case articles in which the authors comment on uses of the case, teaching suggestions, classroom experience, and other helpful pointers. Some cases also offer teaching notes and instructor materials; access to these materials is restricted. Cases cover a wide range of OR and analytics areas, including decision analysis, forecasting, integer programming, linear programming, optimization, probability, revenue management, scheduling, simulation, stochastics, and others. Site users have immediate and free access to all information provided, including PDF versions of all case studies. By clicking on keywords within each article, users gain additional access to related articles published in INFORMS journals that list the same keyword. However, most of these articles are not case studies.

Teaching notes and cases are available to verified, logged-in faculty members.

INFORMS Journals

https://pubsonline.informs.org/

Several INFORMS journals offer published articles that are accompanied by data sets. To access these articles, search "data, as supplemental material" on the INFORMS PubsOnline homepage. These articles include an abstract, PDF of the full article, data sets, and references. They include a variety of topics such as analytical modeling, auctions, behavioral operations, data mining, decision analysis, decision-making, forecasting, healthcare, heuristics, inventory management, optimization, risk management, scheduling, stochastic programming, supply chain management, transportation and others.

For those with a journal subscription, access to all information provided is free of charge. For those without a subscription, access to the abstract, references, and supplemental material is of no charge, but you must pay for access to the case study information. INFORMS offers the option of a single article purchase and all relevant information for $30. This $30 fee must be paid for each article accessed without a journal subscription.

INFORMS Marketing Science Society - ISMS Research Datasets

https://connect.informs.org/isms/mktsciresources/datasets

INFORMS Society for Marketing Science (ISMS) offers two raw data sets in relation to retail—a panel database and a field test database. The first data set spans over 6 years in a retail location, recording nearly 175,000 transactions of 20,000 households. The second data set records the success of a holiday marketing campaign with a database of more than 175,000 customers. ISMS offers a detailed 25-page description of both data sets, research issues, and limitations of the data. The cost of each data set is $200 for ISMS members, $500 for non-members. Annual membership for INFORMS and ISMS currently ranges from $59-$185 depending on membership type as student or regular member.

INFORMS O.R. & Analytics Student Team Competition

https://www.informs.org/Recognize-Excellence/Community-Prizes-and-Awards/Analytics-Section/SAS-and-INFORMS-Analytics-Section-Student-Analytical-Scholar-Competition/SAS-Analytics-Section-Student-Analytical-Scholar-Competition-Application-Process(

Student teams are given the same business problem, data sets, and access to software to solve a challenging problem using an OR/analytics approach. A panel of industry and academic experts judge written submissions based on teams' use of the full analytics process, from framing the problem to methodology selection, data use, model building and innovation. Teams selected as finalists present their solutions to a judging panel at the INFORMS Business Analytics Conference in the Spring, with the winners announced at the conference.

Since the competition inception in 2012, INFORMS and sponsors have on occasion made available all the case-study data online at no charge. Current case-studies include topics such as forecasting, optimization, inventory management, scheduling, and revenue management. The competition is open to all full-time students, at least 18 years old, enrolled in an accredited university, studying analytics, operations research, management science, or a related field. View full eligibility details under competition rules and timeline.

Case Publishers

Darden Business Publishing Cases

http://store.darden.virginia.edu/
Darden Business Publishing provides case-based classroom content for management education at the collegiate level. There are thousands of cases, technical notes, exercises, books, and simulations throughout the site, with new products added annually. Topics include auctions and bidding, corporate aviation, decision analysis, forecasting, games and competition, multi-attribute utility, optimization, probability and statistics, real options, risk analysis, simulation, spreadsheet modeling, stochastic processes, system dynamics and others. All resources are available for immediate PDF download or hard-copy. While site access is open, users must create an account to purchase products.

Darden Business Publiching Course Syllabi

http://store.darden.virginia.edu/syllabus#

Darden Business Publishing provides current Darden course syllabi for the university's graduate curriculum. The list covers the Darden MBA core, electives, executive education, and case method and pedagogy courses. The 34 courses provided include decision analysis, data analysis and optimization, managerial quantitative analysis, and marketing analytics. Each course syllabus lists teaching resources being utilized and where to find them. Typically the resource is found and can be purchased directly through Darden's website for immediate download or shipment of a hard copy.

While access to the syllabi and course information is free, the resources and additional information must be purchased.

Ivey Publishing Cases

https://www.iveycases.com/

Ivey Publishing currently has a library of more than 30,000 resources with supplemental data such as data sets and additional case information. The company currently offer resources in the categories of accounting, entrepreneurship, finance, general management /strategy, information systems, international, introductory business, management science, marketing, operations management, and organizational behavior/leadership. Ivey Publishing provides resources for all levels of collegiate study from introductory undergraduate courses to advanced graduate studies. Once within any category, users can refine their search for any number of resources based on intended audience, product type, industry, collections, region, product length, publication date, and available translations. When clicking on any resource, users are provided with a general overview of the case, learning objectives, and intended course audience.

Ivey Publishing Teaching Tools

https://www.iveycases.com/TeachingAuthoringTools.aspx

Ivey Publishing provides insight to instructors about using cases and data sets for those who are either new to teaching with cases or who are looking for ways to improve their current methodology. The case writing process is described, including why cases are used, the value for participating companies, copyright and ownership issues, etc. Each year Ivey Publishing also provides case method workshops for those looking to hone their skills in writing cases. Information is also provided to individuals who are interested in having their cases published.

Harvard Business Publishing

https://cb.hbsp.harvard.edu/cbmp/pages/home

Harvard Business Publishing (HBP) is the leading provider of teaching materials for management education. They offer thousands of case studies, exercises, briefs, and industry notes. These materials can be used to add dynamic and real-life perspectives to undergraduate, MBA, and executive education programs worldwide. To assist educators, HBP has grouped a large amount of their most widely used cases based upon level of study. In each level of study (undergraduate, MBA, and executive education) they've broken down the topics into accounting, business and government relations, entrepreneurship, finance, general management, human resources management, information technology, international business, marketing, negotiation, operations management, organizational behavior, service management, social enterprise, and strategy.

HBP also hosts seminars several times per year, both in the US and internationally, to help instructors fine-tune their approach to case method teaching. The seminars are intended for all instructors, regardless of their level of experience with case method teaching.

HBP has partnered with more than 45 other institutions such as Columbia, Darden, Ivey Publishing, MIT, McGraw Hill, and Princeton. Clicking on any resource throughout the site provides you with a description, covered subjects, setting, and supplemental data varying on what has been provided. In order to purchase any materials from Harvard Business Publishing, users must create a free premium educator account. The account provides users with educator copies of materials, teaching notes, and discounts for students.

Other Case & Dataset Resources

Data.gov

http://www.data.gov/

Data.gov is the official portal for open data from the U.S. Government. Users can find federal, state, and local data, along with tools and resources to conduct research, build apps, design data visualizations, etc. There are more than 160,000 data sets, which can be filtered by topic area, category, data set type, tags, formats, location, organization types, organizations, and publishers. On average, there are more than 10,000 new data sets published on data.gov every month, spread throughout all of the different departments listed. All federal data and the majority of state and local data provided is free and does not require registration in order to access it.

Data Science Central

http://www.datasciencecentral.com/page/search?q=data+sets

Data Science Central (DSC) is an online resource for big data practitioners that provides an editorial platform, social interaction, forum-based technical support, and information about technology, tools, industry trends, and job opportunities. The results are largely forum-based (question and answer) and opinion pieces more specifically on methods of teaching different topics, tutorials, and interviews with big data scientists around the country.

Access to DSC is free and with a website membership you can also sign up to receive newsletter and full access to DSC's professional network, which includes access to other relevant information and the ability to post blogs, forum questions, and comment on both throughout the site. The weekly digest includes topics such as analytics, data science, operations research, big data, visualization, Hadoop, data integration, statistical science, analytics, and pure data science.

A more concentrated list of those data sets available throughout DSC's site, as well as some additional data sets not listed on their site, can be accessed at http://www.datasciencecentral.com/profiles/blogs/great-github-list-of-public-data-sets. The data sets are organized by their study area, such as agriculture, biology, climate/ weather, computer networks, economics, energy, finance, government, sports, transportation, etc., and are open to the public.

Google Public Data Explorer

http://www.google.com/publicdata/directory

Google Public Data currently aggregates a variety of data sets (cases are not included). Google offers upfront filtering options of Eurostat, Destatis, Statistics Ireland, US Bureau of Labor Statistics, Central Statistics office of Ireland, and a generalized option of any data provider. The data sets can be manipulated to generate the desired results and can be specific or generalized depending on what they're being used to accomplish. Google Public Data Explorer also allows users to upload their own data sets for visualization and exploration. The data sets provided and the service of uploading your own data sets is free to users.

Kaggle-KDD Cup

(http://www.sigkdd.org/kddcup/index.php)

KDD Cup is the annual data mining and knowledge discovery competition, now sponsored by Kaggle. The annual competition allows students to put their analytics and data mining skills to the test against students from all over the United States. Each year students are given two tasks, a multiple data sets, and other relevant information to complete the assignment. All of the information provided is free; however, users need to create a website account in order to access and download the data available. Below are links to competitions and datasets:

Competitions

Datasets

Kaggle in Class Initiative

(http://inclass.kaggle.com/)

The Kaggle in Class initiative is a site devoted to helping instructors of analytics and data mining courses host competitions as part of their course work or outside projects. Hundreds of student competitions (current and past) are listed on the website. Data sets, case studies, and other relevant information are generally available to the public. The services provided by Kaggle are free to hosts (course instructors) and users (students), but all hosts and users must create a free Kaggle account to access the site. Because the site is offered to users at no charge, the capabilities of the site are limited and Kaggle is unable to assist with issues that may arise.

KD Nuggets

http://www.kdnuggets.com/datasets/index.html

KD Nuggets is a website covering topics in business analytics, big data, data mining, and data science. The site currently has nearly 100 data repositories from various sources. The information included within each link varies from case studies to actual raw data sets and data sheets. While most of the data is provided at no cost to the user, the user often will need to create an account for the site providing the data to access detail. The site does not offer a way to search through the data sets or filter the results, but does give you additional links to:

1. Analytics, data science, and data mining competitions,
2. Preferred data APIs, Hubs, Marketplaces, Platforms, and Search Engines.
3. Government, state, city, local, and other public data.

Marketing Edge

http://www.marketingedge.org/marketing-programs/data-set-library

Marketing Edge is a data set library related to various forms of marketing. The information includes data in relation to retailers, non-profits, television, and healthcare. The site currently offers 15 data sets free to members or $25/data set to non-members. The data sets are available to full time college faculty, PhD students, doctoral candidates, full-time researchers at colleges and universities, as well as website members. Included with a membership ($125 basic or $205 premium) is access to materials, seminars, data sets, course syllabi and various teaching materials. For those that choose to forego membership, requesting data sets requires sending an email which includes typical contact information (name, title, university, and contact number) and allowing the site to verify your academic status, as well as signing a non-disclosure agreement.

SAS Instructor Resources

https://www.sas.com/en_us/learn/academic-programs/resources/free-teaching-materials.html

SAS currently offers teaching materials to professors at no charge. These materials include chapter instruction notes, presentations, and data sets, all delivered electronically and ready for reproduction. To request this free teaching material, sign, sign in to your SAS Profile (or create one, if you don't already have one). Complete and submit the teaching materials request form, accept the Terms & Conditions, and your requested materials will be available for immediate download.

The list of available material covers a range of courses, both online and in-person, teaching fields such as programming, statistical analysis, forecasting and econometrics, data-mining, text analytics, optimization and simulation, data management, and high-performance analytics. These courses are designed for the beginner to advanced SAS user and can range from a single half-day course to multiple days depending on the speed of the program chosen.

SAS also offers workshops and professional development opportunities exclusively for university professors. They are offered at no charge (except travel expenses) but are by invitation only.

Teradata Resources

https://www.teradatauniversitynetwork.com/Benefits/Faculty-Members

Teradata, an analytics solutions company, offers various forms of analytics information, including a library of relevant reports, articles, case studies, briefs, infographics, podcasts, videos, white papers, and other materials. There are over 100 case studies relating to various areas of analytics, including cases in finance, cases related to government, cases in relation to healthcare, and cases in transportation and logistics, among other areas. The solutions included are in areas such as big data, marketing, analytics and operations, Hadoop, and unified data architecture, along with several other solutions.

The Teradata University Network (TUN), in conjunction with Teradata (NYSE: TDC), hosts a variety of faculty workshops, student competitions, and through its web-based portal, provides faculty and students software and resources covering everything from analytics (BI), big data, data warehousing, to data science, ALL at NO COST to the university, faculty, or the students. Faculty members requesting access are authenticated and must provide a link to their faculty webpage during registration.