

Empowering the Next Generation

Communicating the Value of Data Science Education
to Students, Administration, and Communities



Meet Your Speaker

Samantha Leav: Director of State Policy for Data Science 4 Everyone. Passionate about equipping educators and students with the tools for success in our data-driven world. With a Mathematics Content Specialist background and experience in diverse rural communities, I believe that data science education is crucial for empowering the next generation. Join me as we explore strategies to communicate the value of data science education to students, administration, and communities, fostering a culture of data-driven decision-making.



Data Science 4 Everyone

At DS4E, we are dedicated to promoting data literacy and extending access to K-12 data science education. Our mission is to equip all students with the vital data literacy skills they need to excel. We offer a wealth of resources, advocacy, and partnerships to empower students to become future data-driven problem solvers. Take the first step towards this transformative journey by joining us at <https://www.datascience4everyone.org/>.



The Significance of Data Science Education

In today's world, data literacy and analytical skills have become crucial for success. Data science education plays a vital role in equipping students with these essential competencies.

As has the internet:

- 5.4 Billion Internet users connected globally.
- 5 Billion videos viewed on YouTube per day.
- 30 Trillion+ estimated web pages.
- 180 Billion emails sent per day.

Source: VentureBeat. <https://venturebeat.com/business/how-google-searches-30-trillion-web-pages-100-billion-times-a-month/>; Internet Live Stats: <http://www.internetlivestats.com/>

The Significance of Data Science Education

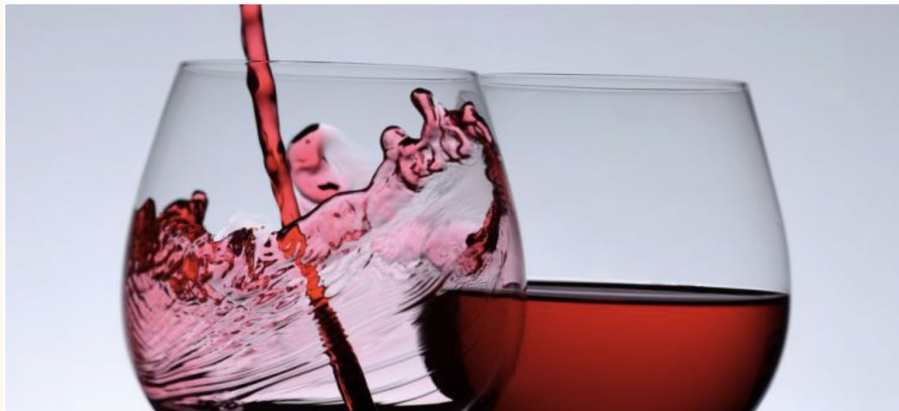
Importance of Data Literacy: Data literacy empowers students to make informed decisions, evaluate information critically, and solve complex problems using data-driven insights.

Meeting Modern Challenges: With the increasing availability of data, students need the skills to navigate and extract meaningful insights from vast information sources.

Is Drinking Wine Better Than Going To The Gym? According To Scientists, Yes!



By Natalie Roterman | Sep 15 2014, 04:51PM EDT



Source: <https://www.buzzfeed.com/carolynkylstra/hype-in-health-journalism>

Extra glass of wine a day 'will shorten your life by 30 minutes'

Drinking is as harmful as smoking, and more than five drinks a week lowers life expectancy, say researchers



Source: <https://www.theguardian.com/science/2018/apr/12/one-extra-glass-of-wine-will-shorten-your-life-by-30-minutes>

The Significance of Data Science Education

Analytical Skills for the Future: Data science education prepares students for future careers by developing their analytical thinking, problem-solving, and decision-making abilities.

Relevance Across Fields: Data-driven decision-making is relevant in various fields, including business, healthcare, technology, and social sciences, where insights derived from data guide strategic planning and innovation.

Agriculture:

IoT devices stream data to help maximize yields and prevent crop damage.



Manufacturing:

Production lines now use advanced data analytics for quality control and managing operations.



Medicine:

Doctors & nurses query massive patient databases on a regular basis.





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News About Your Investments

Mid-Day ETF Update: ETFs, Stocks Mixed as Street Digests Earnings, Economic Data

MT NEWSWIRES 1:25 PM

ETF Preview: ETFs, Futures Mostly Higher on Fed's Policy Shift; Facebook Leads Gainers on Record Q4 Profit

MT NEWSWIRES 9:17 AM

SPDR S&P 500 ETF Trust: Pivot points (TheFlyOnTheWall)

THE FLY 8:17 AM

Mid-Day ETF Update: ETFs, Stocks Higher Ahead of FOMC Policy, Powell Statement

MT NEWSWIRES 01/30/2019 1:36 PM

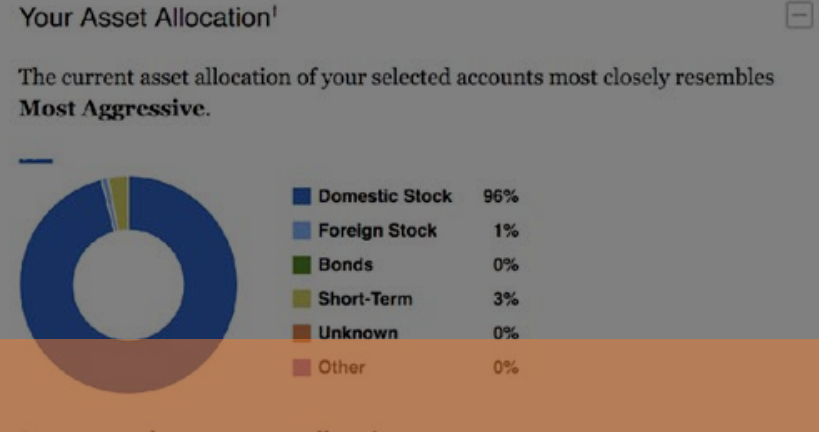
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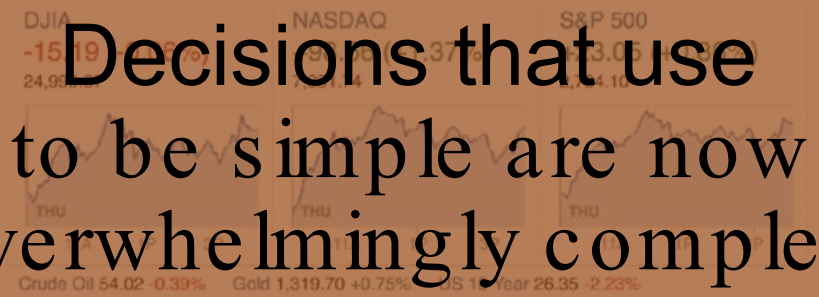


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U.S. Markets Closed.



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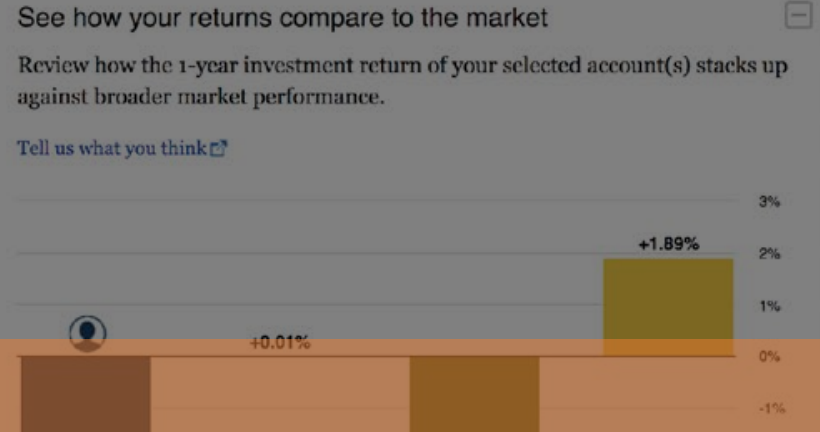
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|---|--------------------|------------|
| SPY | \$1,447.60 (0.88%) | \$269.930 |
| SPDR S&P500 ETF TRUST S&P 500 ETF USD DIS | | |

AS OF 01/31/2019 4:28 PM ET

Take a closer look at your positions.

Strategies for Effective Messaging

- Engaging Students:** Capture students' attention by highlighting the relevance and real-world applications of data science skills. Connect data science concepts to their interests, passions, and future career opportunities.
- Student-Centered Approach:** Empower students to explore and apply data science skills through hands-on projects and real-world scenarios. Foster a student-centered learning environment that encourages exploration, creativity, and collaboration.
- Visual Storytelling:** Utilize visual storytelling techniques such as infographics, data visualizations, and interactive tools to make data science engaging and easier to understand. Visual representations can enhance comprehension and make data more relatable.
- Relatable Messaging:** Use relatable examples and analogies to simplify complex concepts and make data science more accessible. Relate data analysis to everyday experiences or popular topics to demonstrate its practicality and impact.
- Showcasing Benefits:** Clearly articulate the benefits of data science education, such as improved critical thinking, problem-solving skills, and data literacy. Highlight how these skills can empower students to make informed decisions and contribute to their communities.
- Real-World Applications:** Illustrate the real-world applications of data science across various fields, such as healthcare, business, environmental science, and social issues. Show how data-driven insights drive innovation and address societal challenges.



Engaging the Community

Involving the community is vital for supporting data science education and maximizing its impact on students' education.

Significance of Community Involvement: Highlight how engaging the community creates a supportive ecosystem that reinforces the value of data science education and enhances students' learning experiences.

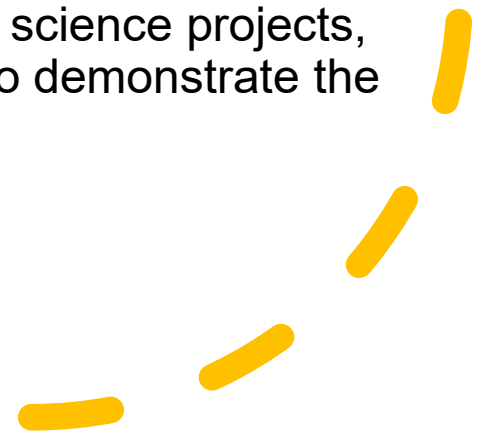
Engaging the Community

Strategies for Communicating Value

Parent Education: Provide workshops, information sessions, and resources to educate parents about the importance of data science education in preparing students for future opportunities and developing critical thinking skills.

Community Presentations: Organize presentations or forums to communicate the value of data science education to community members, emphasizing its relevance to real-world applications, career opportunities, and problem-solving.

Showcasing Student Work: Highlight students' data science projects, achievements, and their impact on the community to demonstrate the tangible outcomes of data science education.



Engaging the Community

Benefits of a Collaborative Approach

Supportive Environment: Engaging the community fosters a supportive environment where parents, educators, and community members work together to ensure students' success in data science education.

Enhanced Resources: Collaboration with the community can bring additional resources, expertise, and partnerships to enrich data science programs, providing students with more opportunities for growth.

Relevance to Local Community: Emphasize how data science education can address community-specific challenges and contribute to local development, promoting a sense of ownership and investment.

Impact on Students' Education: Illustrate how community involvement in data science education enhances students' learning experiences, cultivates their curiosity, and provides them with real-world connections, motivating them to explore data science further.

Involving Families

Engaging families is crucial for supporting data science education and creating a collaborative learning environment for students.

Importance of Family Engagement: Highlight how involving families reinforces the value of data science education, promotes student success, and fosters a sense of community.



Involving Families

Specific Ways to Engage Families

Workshops and Information Sessions: Organize workshops or information sessions for parents to learn about data science education, its relevance, and how they can support their children's learning at home.

Family Events: Host family-friendly events that showcase students' data science projects, encourage hands-on activities, and foster parent-student collaboration.

Resource Sharing: Provide resources, such as online platforms, websites, or reading materials, that parents can access to further their understanding of data science and support their child's learning journey.



Involving Families

Creating a Supportive Environment

Open Communication Channels: Establish open lines of communication between teachers and parents to share updates, progress, and opportunities for involvement in data science education.

Inclusive Practices: Emphasize the importance of creating an inclusive environment that welcomes diverse perspectives, backgrounds, and experiences, ensuring that all families feel valued and engaged.

Parent-Teacher Partnerships: Encourage partnerships between parents and teachers to support students' data science learning, exchanging insights and strategies for success.



Involving Families

Importance of Supportive and Inclusive Environment

Motivated Learners: When families are involved, students feel supported, motivated, and empowered to excel in data science education.

Holistic Learning: Involving families fosters holistic learning, where students can apply data science skills beyond the classroom and see the real-world connections.

Shared Values: Engaging families in data science education promotes shared values of lifelong learning, curiosity, and problem-solving, creating a strong foundation for student success.



Nurturing a Culture of Data-Driven Decision-Making



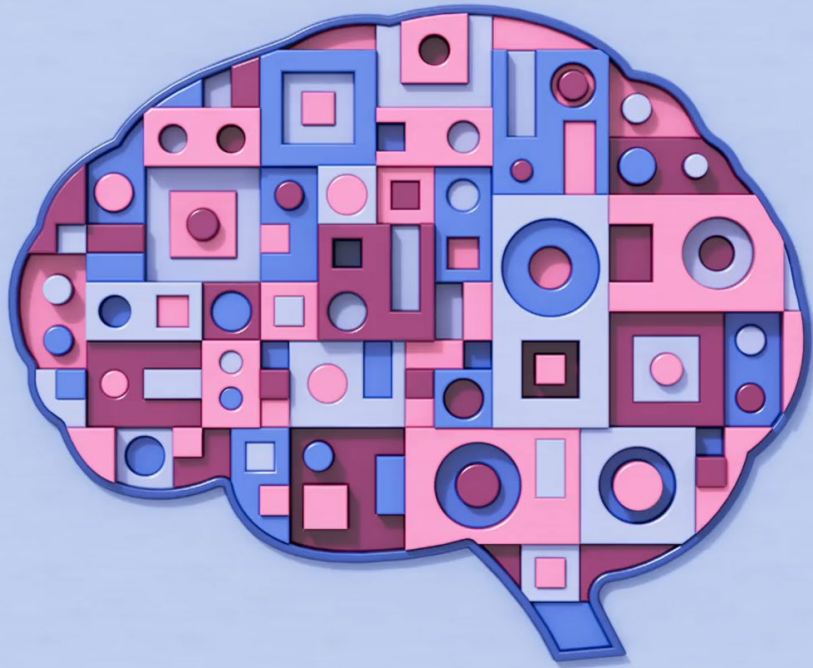
Data science education plays a vital role in fostering a culture of data-driven decision-making within schools.



Importance of Data-Driven Decision-Making: Highlight the significance of using data to inform decision-making processes, promote continuous improvement, and enhance student outcomes.



Nurturing a Culture of Data-Driven Decision-Making



Contribution of Data Science Education

Data Literacy: Data science education equips students with the skills to collect, analyze, and interpret data, fostering data literacy among both students and educators.

Evidence-Based Practices: By integrating data science into instructional practices, schools can promote evidence-based decision-making, ensuring that strategies and interventions are grounded in data-driven insights.

Personalized Learning: Data-driven decision-making enables personalized learning experiences by tailoring instruction and interventions based on individual student needs and strengths.

Nurturing a Culture of Data-Driven Decision-Making

Long-Term Impact on Student Outcomes

Improved Achievement: Utilizing data to inform instructional strategies and interventions leads to improved student achievement and academic growth.

Targeted Support: Data-driven decision-making identifies specific areas of improvement and enables targeted support for students who need additional assistance.

College and Career Readiness: By using data to inform college and career guidance, schools can better prepare students for their future endeavors.



Q and A
