

Information Resources



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Online Book: Site Reliability Engineering: Members of the SRE (Site reliability Engineering) team at Google explain how their engagement with the entire software lifecycle has enabled Google to build, deploy, monitor, and maintain some of the largest software systems in the world. <http://bit.ly/2kLpmGa>

Women leaders in AI: Forty Recipients from Fifteen Different Countries Honored at Inaugural AI Women Leadership Event Hosted by IBM In New York City Global Event Recognizes AI Achievements to Advance Their Companies Innovation and Growth Diverse Industries Represented, Including Energy, Financial Services, Telecommunications, Insurance and Public Sector. <https://ibm.co/2IODRcA>

How Venture Capital Works: Invention and innovation drive the U.S. economy. What's more, they have a powerful grip on the nation's collective imagination. The popular press is filled with against-all-odds success stories of Silicon Valley entrepreneurs. In these sagas, the entrepreneur is the modern-day cowboy, roaming new industrial frontiers much the same way that earlier Americans explored the West. At his side stands the venture capitalist, a trail-wise sidekick ready to help the hero through all the tight spots—in exchange, of course, for a piece of the action. <http://bit.ly/2mhJXm7>

How to Flourish in Industry 4.0, the Fourth Industrial Revolution: We are at the cusp of the next Industrial Revolution fueled by new technologies such as autonomous vehicles, VR/AR, AI, robotics, blockchain, 3D printing and IoT. The purpose of this blog is to provide some insights into how to properly prepare to derive and drive new sources of customer, product and operational value for this next Industrial Revolution – Industry 4.0. <http://bit.ly/2kIRdXH>

Universities should ban PowerPoint. It makes students stupid and professors boring : Do you really believe that watching a lecturer read hundreds of PowerPoint slides is making you smarter? I asked this of a class of 105 computer science and software engineering students last semester. An article in The Conversation argued universities should ban PowerPoint because it makes students stupid and professors boring. I agree entirely. However, most universities will ignore this good advice because rather than measuring success by how much their students learn, universities measure success with student-satisfaction surveys, among other things. <http://bit.ly/2kfXcD1>

44 Google Maps Tricks You Need to Try: Google Maps is a Swiss Army Knife chock-full of hidden navigation, geospatial search, and customization tools. Here's how to unlock your map app's full potential and take advantage of an ever-growing list of new features. <http://bit.ly/2kM6aIz>

Videos: Essential Design Thinking Videos and Methods: The resources listed in this post are recommended in order to assist you to better understand Design Thinking. These resources, videos, and tools should be explored so as to familiarise yourself with how Design Thinking is being taught and applied currently. The resources listed below are only a sample of a wide array of information available on the subject. <http://bit.ly/2IPQZON>

The Next Way to Stop Climate Change: Storing Data in Space: When scientist and entrepreneur Ohad Harlev was looking for new ways to store data in 2015, he thought his best idea was out of reach. Instead of keeping hard drives in a large data center, he wanted to store data by moving it back and forth between servers at the speed of light. Four years later, he has turned that dream into reality — and gone a step further. Harlev's company, LyteLoop, has developed technology to store data in motion, but not just between servers on Earth. It is planning to use photonics — the science of generating and harnessing light that undergirds technologies critical for everything from smartphones to lasers — to store data in space, by sending it back and forth between satellites. The impact could extend to the health of the planet, and LyteLoop isn't alone. <http://bit.ly/2ILK1dv>

19 soft skills every leader needs to be successful: The most successful leaders have not only mastered technical skills, they've also mastered soft skills. Commonly known as people or interpersonal skills, soft skills like negotiating, building morale, and maintaining relationships are key to a leader's success. According to ResourcefulManager, a website dedicated to helping managers become more effective at their jobs, "Technical aptitude and business savvy aren't worth much if leaders don't have the people skills to execute them." Here are 19 soft skills leaders need to be successful - as well as tips to hone them - from ResourcefulManager: <http://bit.ly/2kJDDmU>

Context-Aware Computing: A tablet computer switching the orientation of the screen, maps orienting themselves with the user's current orientation and adapting the zoom level to the current speed, and switching on the backlight of the phone when used in the dark are examples of computers that are aware of their environment and their context of use. Less than 10 years ago, such functions were not common and existed only on prototype devices in research labs working on context-aware computing. <http://bit.ly/2kM6KGf>

Digital identification: A key to inclusive growth: This report focuses on the economic potential of good digital ID. As an enabler of economic, social, and political activity in a digital age, good digital ID is a new frontier in value creation for individuals and institutions. We acknowledge that our research is not the last word on digital ID. For example, the design, governance, and use of digital ID is a rapidly evolving area deserving additional research. However, we hope our initial research effort contributes to a greater understanding of how digital ID, designed with the right principles, implemented with strong controls, and enforced with well-considered policies, can create significant economic benefits for individuals and institutions and can protect individuals from the risk of abuse. <https://mck.co/2kLqHNc>

Machine learning dates back to at least 300 BC: Many people think that artificial intelligence and machine learning are recent phenomena. However, these techniques and ideas actually go back deep into human history. Machine learning has always been an important tool for data mining for humanity, it was given different names in different eras. The key to machine learning is not machines but mathematics. There is nothing special about silicon and electricity. In fact, the first computers were mechanical, not electrical. The goal of machine learning is to take a dataset and use that dataset to make predictions about unknown values within it. The aspect of mathematics that deals with predicting unknown values in a dataset is known as curve fitting. Curve fitting has been known to humanity since at least the ancient Babylonians. Babylonian astronomers used curve fitting techniques to discover missing data points in astronomic tables. Unfortunately, the specific techniques they used have been lost to history. Today, computer-based machine learning gives us more methods to choose from and we can work with much higher numbers. <http://bit.ly/2m8INcm>

Videos: 5 TED Talks on the future of robots: Do you feel bad when your Roomba gets stuck? Do you worry about what robots are coming next? Watch these TED Talks for insights on trust, bias, and what's ahead for robotics <https://red.ht/2IMP5yr>

Top 10 Application-Design Mistakes: Designing complex applications is a challenging undertaking. Building applications that have both the depth to support complicated tasks and the intuitiveness to make it clear how to get that work done is a tremendous challenge. Making general recommendations about common application-design problems is difficult, because so many of the problems we observe are domain-specific. Despite the domain-specific nature of most app usability problems, here are 10 common mistakes that we frequently see across industries. <http://bit.ly/2kzpz45u>

Tips and Techniques for More Confident and Compelling Presentations: The ability to present your ideas in a clear, confident, and authentic manner can make a huge difference in your business (and personal) success. Yet many people are anxious or under-practiced in presenting effectively. The best way to feel more confident and deliver engaging presentations is through smart and thorough preparation and practice. From first planning through actual delivery, these tips and techniques can help you be a more compelling speaker and ensure your audience gets your message. <https://stanford.io/2mfXN8y>

Wearable Computing: Wearable computing is the study or practice of inventing, designing, building, or using miniature body-borne computational and sensory devices. Wearable computers may be worn under, over, or in clothing, or may also be themselves clothes. <http://bit.ly/2kgLGHH>

Videos: 9 Best Motivational Leadership Videos Under 3 Minutes; There are a gazillion videos about leadership on YouTube, from Amway to Churchill to TED Talks, and beyond. But if you just want to breeze through some insightful, fun and focused videos, these nine will do the trick. Each of these brief (most of them are under 3 minutes) leadership videos succeeds at capturing an essence of leadership at its simplest, yet most profound. <http://bit.ly/2kgLKqV>

Are passwords obsolete? 5 things that could replace them: Passwords represent a common entry point for hackers in enterprise networks. With millions of professionals and consumers still using the most-hacked passwords like "123456," "qwerty," and "password," and the rise of other more secure forms of identification, it appears that traditional passwords may become obsolete in the near future. Companies including Microsoft have already announced intentions to replace traditional typed passwords with other secure credentials. But what will the passwords of the future look like? Considering

current trends, it's likely that within five years, biometric-based identification systems will be more widespread, and used alongside two-factor authentication for extra security, said Paul Lipman, CEO of cybersecurity firm BullGuard in an email. While traditional passwords won't completely die out in that time, they will likely be supplemented by other measures more frequently, he added.. <https://tek.io/2klEdao>

Top 15 Trends in the Medical Robots disrupting Healthcare Industry: The top 15 trends in the Medical Robots is redefining and creating a world where robots will play an integral part in treating and curing sick patients than doctors. <http://bit.ly/2me1Bad>

Aesthetic Computing: The phrase "Aesthetic Computing" while taken literally applies the philosophical area of aesthetics to the field of computing, and work in the area is broadly defined as such; however, in my operational definition for the work we do in my research lab and in teaching, aesthetic computing is treated as embodied formal language. The purpose of aesthetic computing is to deliver knowledge and practice of formal languages using aesthetic products as a vehicle. Aesthetic Computing is founded on an increasing collection of literature on the role of the body in learning, specifically in mathematics. This foundation is then applied to the field of computing whose formal language elements are extensions of mathematics. <http://bit.ly/2kJEZhu>

How Anger Affects the Brain and Body: There are times when we fly into a rage, such as when we face an outrageous situation or when we have an argument with a loved one. We may think that our anger is justified (and it probably is), and we have every right to be angry. But do you know what happens each time you get angry? Firstly, the first spark of anger activates our amygdala, the part of our brain that's involved with the experiencing of emotions — before you're even aware of the anger itself. This begins a chain reaction in our brain which leads to our adrenal glands secreting stress hormones like cortisol, adrenaline, and noradrenaline. <http://bit.ly/2lOjTyG>

'True Gen': Generation Z and its implications for companies: Long before the term "influencer" was coined, young people played that social role by creating and interpreting trends. Now a new generation of influencers has come on the scene. Members of Gen Z—loosely, people born from 1995 to 2010— are true digital natives: from earliest youth, they have been exposed to the internet, to social networks, and to mobile systems. That context has produced a hypercognitive generation very comfortable with collecting and cross-referencing many sources of information and with integrating virtual and offline experiences. <https://mck.co/2lNLRuw>

The complete list of alternatives to all Google products: With growing concerns over online privacy and securing personal data, more people than ever are considering alternatives to Google products. After all, Google's business model essentially revolves around data collection and advertisements, both of which infringe on your privacy. More data means better (targeted) ads and more revenue. The company pulled in over \$116 billion in ad revenue last year alone – and that number continues to grow. But the word is getting out. A growing number of people are seeking alternatives to Google products that respect their privacy and data. This guide aims to be the most exhaustive resource available for documenting alternatives to Google product. So let's get started (in no particular order or preference). <http://bit.ly/2kgMTid>

Human-Robot Interaction: This chapter introduces and critically reflects upon some key challenges and open issues in Human-Robot Interaction (HRI) research. The chapter emphasizes that in order to tackle these challenges, both the user-centred and the robotics-centred aspects of HRI need to be addressed. The synthetic nature of HRI is highlighted and discussed in the context of methodological issues. Different experimental paradigms in HRI are described and compared. Furthermore, I will argue that due to the artificiality of robots, we need to be careful in making assumptions about the 'naturalness' of HRI and question the widespread assumption that humanoid robots should be the ultimate goal in designing successful HRI. In addition to building robots for the purpose of providing services for and on-behalf of people, a different direction in HRI is introduced, namely to use robots as social mediators between people. Examples of HRI research illustrate these ideas. <http://bit.ly/2kjUaOg>

Dark Web: A cheat sheet for business professionals: Hacking is a fact of life for businesses and consumers alike. Often, leaked data surfaces and is sold to miscreants—hackers, shady government organizations, and other bad actors—on the Dark Web. The Dark Web—or dark net, backweb, onionweb—is frequently misunderstood. The network is used by legitimate actors like law enforcement organizations, cryptologists, and journalists as often as by malefactors and criminals. TechRepublic's cheat sheet is a routinely updated "living" precis about how the Dark Web works, the content that populates the encrypted internet, and the encryption tools needed to safely navigate the network. <https://tek.io/2kIPDFd>

What is Sextortion (with examples) and how can you avoid it?: In general terms, sextortion is extortion involving material of a sexual nature, but it can take various forms. This crime is a growing concern in many parts of the globe and affects a broad range of targets, including males, females, minors, and adults. Aside from the psychological and sometimes physical damage it imparts, a major problem with this crime is that many cases go unreported because victims are too embarrassed. With the popularity of social media, messaging apps, and online dating, the exchange of explicit material online is far more commonplace. Plus, webcams make it very simple for people to record themselves (or be secretly recorded). With the prevalence of sextortion crimes, it's important that everyone is aware of what to look out for. In this

post, we explain what sextortion is, and how it takes place, including describing some real-life examples. We'll then provide tips to help you avoid becoming the next victim of sextortion. <http://bit.ly/2ITzfBQ>

How to speed up your internet connection – 15 tips and tricks: Are you stuck wondering why your internet seems to be slow all.the.time? There's a good chance you, like most other people, are suffering from one of many issues that could be slowing down your internet speed. Whether you have too many devices on your network, using old hardware, or have interference from other wireless signals, there are a number of reasons why your internet may be far slower than it should be. Here are 15 methods you can use to help speed up your internet connection. <http://bit.ly/2klF9vq>

ISRO Chandrayaan 2 Launch Today: Answers To All Your Questions On India's Second Moon Mission: India's second unmanned mission to the Moon, named Chandrayaan 2, is all set to take off on 22 July, provided the weather conditions are ideal. After the success of Chandrayaan-1 and the host of other satellite launches since, the expectations from Chandrayaan 2 are quite high. With Chandrayaan 2, in a first for India, ISRO will be depositing a lander and rover on the surface of the Moon. There is a lot to unpack, so let's dive right into it. The aim is to make this your one-stop-shop for everything Chandrayaan 2. <http://bit.ly/21NMAfe>

Human Computer Interaction - brief intro: Human-computer interaction (HCI) is an area of research and practice that emerged in the early 1980s, initially as a specialty area in computer science embracing cognitive science and human factors engineering. HCI has expanded rapidly and steadily for three decades, attracting professionals from many other disciplines and incorporating diverse concepts and approaches. To a considerable extent, HCI now aggregates a collection of semi-autonomous fields of research and practice in human-centered informatics. However, the continuing synthesis of disparate conceptions and approaches to science and practice in HCI has produced a dramatic example of how different epistemologies and paradigms can be reconciled and integrated in a vibrant and productive intellectual project. <http://bit.ly/2me3nIp>

DeepMind and Google: the battle to control artificial intelligence: One afternoon in August 2010, in a conference hall perched on the edge of San Francisco Bay, a 34-year-old Londoner called Demis Hassabis took to the stage. Walking to the podium with the deliberate gait of a man trying to control his nerves, he pursed his lips into a brief smile and began to speak: "So today I'm going to be talking about different approaches to building..." He stalled, as though just realising that he was stating his momentous ambition out loud. And then he said it: "AGI". Demis Hassabis founded a company to build the world's most powerful AI. Then Google bought him out. Hal Hodson asks who is in charge. <http://bit.ly/2kl5Yjk>

35 Innovators Under 35 for 2019: At Tech Review, it's part of our ethos that technology can, and should be, a force for good. Our annual list of 35 innovators under 35 is a way of putting faces on that idea. In these profiles—which feature in our new print issue—you'll find people employing innovative methods to treat disease, to fight online harassment, and to create the next big battery breakthrough. You'll find people using AI to better understand neurological disorders and to make cities more livable. The list is split into five categories: Inventors, Entrepreneurs, Visionaries, Humanitarians, and Pioneers. This year's TR35 shows that even in hard, cynical times, there are still lots of smart people willing to dedicate their lives to the idea that technology can make a safer, fairer world. <http://bit.ly/2IMRKYX>

Videos: 17 TED Talks: How we study space: Beyond our galaxy, there lies much more to be discovered. Learn how we explore the universe with talks that are definitely out of this world. <http://bit.ly/2mhNIII>

How Recommender Systems Work: Recommender systems are machine learning systems that help users discover new product and services. Every time you shop online, a recommendation system is guiding you towards the most likely product you might purchase. Recommender systems are an essential feature in our digital world, as users are often overwhelmed by choice and need help finding what they're looking for. This leads to happier customers and, of course, more sales. Recommender systems are like salesmen who know, based on your history and preferences, what you like. <http://bit.ly/2INNCb6>

9 steps how to become a UX / UI designer, if you do not have a work experience and a degree; I worked with such companies as Montblanc, Dunhill, Saks Fifth Avenue and many others as a graphic designer. I have about 10 years of experience in the design field. After 7 years of work as a graphic designer, I decided to switch to web design; I'm just talking about the web, because at that time there were no such divisions as UX, UI and others. (The reason for this change was the interest in a new design direction, greater freedom of ideas expression and no matter how typical it sounds the greater demand on the market and greater long term opportunities). I just want to let you know right away that just like many of you now, who are reading this article, I had no experience in web and mobile design. The only advantage I had was that I more or less knew the photoshop. I did not have the appropriate portfolio and experience. But after some preparation time, I still found the first job, then another, then the next one, until I got noticed by Wargaming and was invited to take a position of Senior Visual Designer. <http://bit.ly/2kjVMri>

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