• News Corners
  ▪ LUMS and Library News

• Indexing of News Papers

• New Book List
  ▪ List of New Arrivals

• Journal table of Contents
  ▪ Business, Social Sciences, Law, Science & Engineering

• Indexing of SCOPUS Publications
  ▪ LUMS publications

• Book of the Month
  ▪ Best seller book

• Monthly Library Statistics
  ▪ e-databases, portals, website, circulation usage
LUMS Vice Chancellor Takes Part in ‘Global Ethics Week 2020’

LUMS Vice Chancellor, Dr. Arshad Ahmad was part of a panel discussion titled, ‘Reimagining Future Skills in the Age of AI and Data’ on October 21, during which he spoke about how essential it is to design learning and development programmes at educational institutions to prepare professionals for tomorrow’s challenges. The discussion was held as part of the ‘Global Ethics Week 2020’ organised by ACCA Pakistan where leaders in business and academia came together to debate on how best to prepare for an ethical future and ensure sustainability. Read More

Kaleem Bhai: Inspiring the LUMS community with a passion for Urdu language

Dr. Ghulam Moeen Ud Din, Adjunct Faculty at the School of Humanities and Social Sciences, grew increasingly curious, every time he would see a young man from the LUMS Audio Visual (AV) staff, quietly stealing moments throughout the day to open a set of books and start reading. It wasn’t often you’d find a staff member on campus so engrossed in a book, almost transported by the words. Which is why one day, Moeen Ud Din walked up to this young man and asked him what he was reading. Read More

LUMS Researchers Identify Solutions to Prevent Pakistan’s Frequent Outages During Peak Load Hours

LUMS PhD student, Huzaifa Rauf is part of a three-member team, which has studied the possibility of attaching a floating Photovoltaic (PV) on a body of water connected to one of the country’s hydroelectric dams. Rauf explained that Pakistan covers around 30% of its power demand with hydroelectric dams. Some of these facilities are of considerable size, like the Tarbela Dam, which reportedly has 3.5 GW of generating capacity. Read More

BSc 2010 Raises PKR 14 Million for Endowment Fund

In the spirit of providing a world-class education to the country’s most talented youth, the LUMS BSc Class of 2010 has raised PKR 14 million to create the ‘Waheeb and Rafia BSc Class of 2010 Endowment Fund’. The fund is named in honour of their classmates, Waheeb Alam and Rafia Amber, both of whom have passed away. The endowment of PKR 14 million will be used to provide a 100% tuition fee waiver for one financially challenged undergraduate scholar in perpetuity. Read More

Canadian High Commission in Pakistan Holds Recruitment Session for LUMS Students

The first session of the ‘Health and Safety Hour’ was held on September 25, in which the Director of Campus Health and Safety and Professor of Practice in Public Health at LUMS, Dr. Samia Altaf, addressed the concerns of the LUMS community with regards to the phased opening of the campus. Phase one of the campus reopening began on September 15 and 160 students were invited to come to campus, out of which about 107 students are at present living in the hostels. Read More
Dr. Samia Altaf Leads the 'Health and Safety Hour' for the LUMS Community

The first session of the ‘Health and Safety Hour’ was held on September 25, in which the Director of Campus Health and Safety and Professor of Practice in Public Health at LUMS, Dr. Samia Altaf, addressed the concerns of the LUMS community with regards to the phased opening of the campus. Phase one of the campus reopening began on September 15 and 160 students were invited to come to campus, out of which about 107 students are at present living in the hostels. Read More

Career Development Session Organised by PTCL

Career Services Office (CSO) organised a virtual career development session on 'Building Your Corporate Career: A Student Capacity Building' for the BSc, BS and MS class of 2020 and 2021 on Tuesday, October 27. The session was conducted by Mr. Nauman Durrani, Executive Vice President, Sales, PTCL. Mr. Shaharyar Latif, Senior Manager, Talent Acquisition, started the session by introducing himself, his team, and explained the mission and core values of PTCL. A corporate video was then shown to explain the periodic cultural changes and the digital transformation of the company. Read More

Work from Home, the Right Way

Unprecedented times have compelled us to stay home and create a new work routine; work-from-home has now become a necessity. Here are a few ways through which you can make your current work-from-home set-up more efficient and also maintain a healthy work-life balance. Read More

Khaadi holds Campus Drive for its Internship and Management Trainee Programmes

Khaadi held an introductory session as part of its Campus Drive held on Tuesday, February 25, 2020 at the Suleman Dawood School of Business at LUMS. The session began with Mr. A. Munam Shaikh, Lead Talent Acquisition at Khaadi, welcoming the audience and introducing his team which included; Samie Cashmiri, Chief Commercial Officer; Seemal Tariq, HR Business Partner; Saad Ali, Retail Director; Shuja Ul Haque, Head Rewards and Services; Laraib Zafar, HR Generalist and Neha Fatima, Management Trainee. Mr. Shaikh, Mr. Cashmiri, Ms. Tariq and Ms. Fatima are all LUMS graduates. Read More

Celebrating O-Week’20

The first-year orientation programme builds the foundation for academic success, lifetime associations, and community engagement for incoming undergraduate students. Among many firsts this year, LUMS welcomed the batch of 2024 through an interactive virtual O-Week on September 7, 2020. Every year, LUMS welcomes a diverse student body of brilliant students from over 125 cities and towns across Pakistan. Read More
**Madadgaar: A Convenient Blood Donation Platform**

In the current climate of the pandemic, many students at LUMS have directed their efforts to alleviate the situation by setting up non-profit foundations, donation systems and charities. Madadgaar is one such initiative that aims to simplify the process of blood donation and make it accessible and easier for the general population. [Read More]

**LUMS Appoints Dr. Tariq Jadoon as Vice Provost**

Dr. Tariq Jadoon is no stranger to the LUMS community. Having spent two decades at the University, his close association with the various departments and offices makes him the perfect choice for the post of Vice Provost. A familiar face on campus, be it as part of the faculty at the School of Science and Engineering, or as Registrar from 2009-2011, with a short stint in 2019, he is all praise for the LUMS environment and its dynamic community. “LUMS has a really nice working environment, with the best minds in the country brought together here. If you wish to pursue your dreams or ideas, no one really holds you back,” he says. [Read More]
**Agricultural Crops:**

- Cotton futures fall as Sally induced crop damage worries ease. Business Recorder, 18th Sep, 2020.
- PM wants action plan for agriculture sector. DAWN, 24th Sep, 2020.
- Sustainable farming. DAWN, 29th Sep, 2020.
- Pakistan yields 2.5, misses 1.5 million tonnes of wheat target. The Nation, 28th Sep, 2020.

**Agricultural General:**

- Rain spells disaster for Sindh’s agriculture sector. DAWN, 7th Sep, 2020.
- Senate body wants telemetry system for fair water distribution. DAWN, 26th Sep, 2020.
- Telemetry system on cards to distribute water judiciously among provinces. The Nation, 26th Sep, 2020.
- Wheat price in market higher than imported rate, note MPs. The Nation, 29th Sep, 2020.

Auto and Allied:

• Cabinet approves Rs40 fare for Orange Line Metro Train. DAWN, 15th Sep, 2020.
• Peshawar BRT service suspended after bus catches fire. DAWN, 17th Sep, 2020.
• EVs spell crude’s doom. DAWN, 27th Sep, 2020.
• Industries minister, manufacturers called to explain reasons of cars’ higher prices. The Nation, 11th Sep, 2020.
• ECC sanctions import of customs duty free cars under disabled persons’ scheme. The Nation, 17th Sep, 2020.

Banking Pakistan:

• The future of digital banking. DAWN, 1st Sep, 2020.
• Islamic banks demand better yield on sukuk. DAWN, 14th Sep, 2020.
• Islamic banking market share slightly up to 15.3pc. The News, 12th Sep, 2020.
Cement and Construction Industry:

- Innovative sustainable construction with limited funds can serve the poor and heal the planet. Business Recorder, 18th Sep, 2020.
- Rotten to the bone. DAWN, 7th Sep, 2020.
- Marginalized majority. DAWN, 9th Sep, 2020.
- High prices of PHA housing units disappoint people. DAWN, 14th Sep, 2020.
- Cement despatches up by 5.04pc, exports 5.82pc in August. The Nation, 5th Sep, 2020.
- CDA chief asks housing societies to deliver plots to allottees. The Nation, 11th Sep, 2020.
- Riverfront project to be an avant-garde initiative for policy makers. The Nation, 16th Sep, 2020.

Communications and Transportation:

- Number of 3G, 4G users reaches 84.81m by end of August. Business Recorder, 22nd Sep, 2020.
- Centre, Sindh claim control over Rs300bn KCR. DAWN, 8th Sep, 2020.
Economic Budget, Condition:

- No trust shown in prices being collated by PBS. Business Recorder, 23rd Sep, 2020.
- Govt can’t afford to be complacent about economy. Business Recorder, 28th Sep, 2020.
- Economy on path of recovery, exports to rebound, inflationary pressure to ease out, notes MFPCB. The Nation, 25th Sep, 2020.
- Debt, liabilities surge to staggering Rs44.3 trillion. The News, 30th Sep, 2020.
Economic Development, Planning:

- Demand for credit and financial services to increase in 2021. Business Recorder, 14th Sep, 2020.
- Imran unveils Rs1.1tr Karachi uplift package. DAWN, 6th Sep, 2020.
- Centre, Sindh spar over contribution to Karachi package. DAWN, 7th Sep, 2020.
- Why getting foreign investment is difficult. DAWN, 7th Sep, 2020.
- NA passes FATF-related bill on terror financing. DAWN, 16th Sep, 2020.
- Parliament’s joint session adopts three FATF bills amid tumult. DAWN, 17th Sep, 2020.
- Swat district bags highest allocation of Rs7.78 billion in current fiscal. DAWN, 20th Sep, 2020.
- Drastic measures proposed to contain circular debt. DAWN, 30th Sep, 2020.
- Asim Bajwa decides to resign as SAPM, retain CPEC post. The Nation, 4th Sep, 2020.
• Pakistan, China to sign development agreement of CPEC SEZ Rashakai today. The Nation, 14th Sep, 2020.
• CPEC moving forward to industrialization growth, says PM. The Nation, 15th Sep, 2020.
• President stresses need for raising public awareness about Islamic finance. The Nation, 15th Sep, 2020.
• Rashakai SEZ to set new direction for modern industrialization. The Nation, 16th Sep, 2020.
• RSEZ. The Nation, 21st Sep, 2020.
• Govt ready to privatize 19 PSEs, including PSM and Roosevelt Hotel. The Nation, 22nd Sep, 2020.
• Political consensus on CPEC. The Nation, 23rd Sep, 2020.
• CPEC Committee suggests electric locomotives in ml-1 project. The Nation, 25th Sep, 2020.
• Gwadar to be linked with railway line under CPEC. The Nation, 29th Sep, 2020.
• Pakistan to face huge penalty for not executing donors’ funded projects. The News, 4th Sep, 2020.
• Karachi relief project not to create wedge between PPP, Opp parties. The News, 6th Sep, 2020.
• Pakistan, China to ink Rashakai SEZ agreement today. The News, 14th Sep, 2020.

Energy:

• Inter-ministerial meeting agrees to increase power tariff. Business Recorder, 2nd Sep, 2020.
• PD yet to firm up mechanism to recover GIDC. Business Recorder, 6th Sep, 2020.
- Govt stakes in OGDCL, PPL. Business Recorder, 8th Sep, 2020.
- For green buildings to go mainstream, local players must advocate energy-efficient products. Business Recorder, 28th Sep, 2020.
- Power division, Nepra swing into action against KE. DAWN, 5th Sep, 2020.
Govt move to replace under-fire KE boss. DAWN, 8th Sep, 2020.


Imran foresees severe gas crisis in winter. DAWN, 10th Sep, 2020.

Govt declines relaxation in GIDC recovery. DAWN, 12th Sep, 2020.

Who will bear the brunt of power? DAWN. 14th Sep, 2020.

Power sector gets relief amid protest by petroleum stakeholders. DAWN, 19th Sep, 2020.

Hydropower producers resisting tariff cut. DAWN, 21st Sep, 2020.


Sindh may face higher gas shortage this winter. DAWN, 25th Sep, 2020.

Nepra’s non-regulatory operation. DAWN, 28th Sep, 2020.

Three plants relieved of LNG purchases from SNGPL, PSO. DAWN, 28th Sep, 2020.

PM rejects increase in petrol prices. The Nation, 1st Sep, 2020.

Nepra likely to change terms and conditions of K-E’s power distribution license. The Nation, 7th Sep, 2020.


ECC sanctions discounted power, gas rates for erstwhile 5 zero-rated export sectors. The Nation, 10th Sep, 2020.


Businessmen seek cut in tax ratio on oil to facilitate industry, trade. The Nation, 14th Sep, 2020.


Decision on Kalabagh Dam only with provinces’ consent. The Nation, 16th Sep, 2020.

Nepra reserves judgment in KE petition for Rs1.54 per unit raise in base rate of power. The Nation, 18th Sep, 2020.

CCoE decides to amend gas supply agreement for three RLNG power plants. The Nation, 19th Sep, 2020.


WB okays $450m to support Pakistan’s transition to renewable energy resources. The Nation, 26th Sep, 2020.


Solar power project to cater 17,000 families. The News, 4th Sep, 2020.
• PM vows to protect businesses from GIDC impact. The News, 6th Sep, 2020.
• SNGPL receives Rs32bln from energy sukuk-II. The News, 8th Sep, 2020.
• Govt decides to raise Ogra head’s salary from Rs600,000 to Rs1.5m. The News, 22nd Sep, 2020.
• SSGC cautions gas shortage to double as supply from five fields halts. The News, 24th Sep, 2020.
• Country to face gas deficit up to 1.5bcfd in this winter. The News, 28th Sep, 2020.

Imports and Exports:

• No clear-cut export strategy two years later. Business Recorder, 1st Sep, 2020.
• ECC likely to allow import of wheat. Business Recorder, 16th Sep, 2020.
• ECC orders wheat import in small quantities. DAWN. 18th Sep, 2020.
• As deficit surges to Rs1.71tr, govt fails to improve financial condition of PSEs. The Nation, 1st Sep, 2020.
• TCP asked to start importing wheat for maintaining strategic reserves. The Nation, 18th Sep, 2020.
• Exports increase 1 per cent to Rs599 billion in two months. The Nation, 22nd Sep, 2020.
• FPCCI recommends more incentives for overseas Pakistanis to spur remittances. The Nation, 27th Sep, 2020.
• Exports plunge 20pc to $1.5 billion in August. The News, 4th Sep, 2020.
• Government targets raising exports to $46b over 5 years. The News, 4th Sep, 2020.
• ECC approves import of 9,000mt wheat. The News, 18th Sep, 2020.

SMEs:


Textile Industry:

• Govt committed to introducing stable textile policy. Business Recorder, 20th Sep, 2020

Trade:

• REAP vows to defend Pakistan’s rights under WTO. Business Recorder, 24th Sep, 2020.
• Cotton spot rate rises by Rs50 to RS8850. Business Recorder, 26th Sep, 2020.
• Fortescue Metals Group keen to invest in Pakistan. The Nation, 8th Sep, 2020.
New Arrivals

**Computer Science**

Title: Qualitative data analysis with NVivo / Kristi Jackson and Pat Bazeley.
Publisher: Los Angeles : Sage, 2019.
Call Number: 001.4220285 J124Q 2019

Title: Hack audio : an introduction to computer programming and digital signal processing in MATLAB / Eric Tarr.
Call Number: 006.5 T192H 2019
Pages: xxxiii, 458 pages : illustrations ; 24 cm.

**Science and Engineering**

Title: RNA biology : an introduction / Gunter Meister.
Call Number: 572.88 M515R 2011
Pages: xvi, 363 pages : illustrations (some colour) ; 24 cm.

Publisher: Cambridge : Cambridge University Press, 2014.
Call Number: 580.6342 I343 2014
Pages: xv, 390 pages : illustrations ; 24 cm.

Title: Perry's chemical engineers' handbook / editor-in-chief Don W. Green, associate editor Marylee Z. Southard.
Call Number: 660 P462 2019

Title: Handbook of chemical engineering calculations / edited by Tyler G. Hicks and Nicholas P. Chopey.
Call Number: 660.0212 H631H 2012

Title: Chemical reactor design : mathematical modeling and applications / Juan A. Conesa.
Call Number: 660.2832 C747C 2020
Pages: xvii, 332 pages : illustrations ; 25 cm.
Title: Separation process principles with applications using process simulators / J.D. Seader, Department of Chemical Engineering, University of Utah, Ernest J. Henley, Department of Chemical Engineering, University of Houston, D. Keith Roper, Ralph E. Martin Department of Chemical Engineering, University of Arkansas.
Call Number: 660.2842 S438S 2016
Edition: Fourth edition

Title: Postmodern theory and progressive politics : toward a new humanism /
Publisher: Cham, Switzerland : Palgrave Macmillan, 2019.
Call Number: KIC 149.97 Z54P 2019
Pages: xxi, 393 pages ; 22 cm.

Title: Communication : how to connect with anyone / Gill Hasson.
Publisher: Chichester, West Sussex : Capstone, 2019.
Call Number: KIC 153.6 H355C 2019

Title: Self-confidence : a philosophy / Charles Pepin.
Call Number: KIC 158.1 P422S 2020
Pages: 216 pages ; 21 cm.

Title: The rules of love : a personal code for happier, more fulfilling relationships / Richard Templar.
Call Number: KIC 158.2 T284R 2016
Edition: [Third edition]

Call Number: KIC 170 B334W 2016
Pages: 265 pages ; 25 cm
Religion

Title: Religions in the modern world : traditions and transformations / edited by Linda Woodhead, Christopher Partridge, and Hiroko Kawanami.
Call Number: KIC 200 R382 2016

Title: Fundamentalism in the modern world / edited by Ulrika Martensson, Jennifer Bailey, Priscilla Ringrose and Asbjorn Dyrendal.
Call Number: KIC 200.904 F981 2011
Pages: x, 336 pages : illustrations ; 24 cm.

Title: God, modality, and morality / William E. Mann.
Call Number: KIC 212 M281G 2015
Pages: ix, 369 pages ; 25 cm

Title: Cross veneration in the medieval Islamic world : Christian identity and practice under Muslim rule / Charles Tieszen.
Call Number: KIC 246.558 T564C 2017
Pages: x, 229 pages : illustrations ; 23 cm.

Title: Reform of Islam : forty theses for an Islamic ethics in the 21st century / Abdel-Hakim Ourghi ; translated from the German by George Stergios.
Call Number: KIC 297 O939R 2019
Pages: 201 pages ; 25 cm

Title: The making of religious texts in Islam : the fragment and the whole / edited by Asma Hilali and S.R. Burge.
Call Number: KIC 297.12 M235 2019
Pages: x, 246 pages ; 25 cm.
In search of Ali ibn Abi Talib's codex: history and traditions on the earliest copy of the Quran / Seyfeddin Kara; with a foreword by James Piscatori.

Publisher: Berlin, Germany: Gerlach Press, 2018.
Call Number: KIC 297.1226 K181I 2018
Pages: xiii, 278: pages, illustrations; 25 cm.

Islam in international relations: politics and paradigms / edited by Nassef Manabilang Adiong, Raffaele Mauriello, and Deina Abdelkader.

Call Number: KIC 297.272 I821 2019
Pages: xiv, 236 pages: illustrations; 24 cm.

The wisdom of tolerance: a philosophy of generosity and peace / Abdurrahman Wahid, Daisaku Ikeda.

Call Number: KIC 297.2843 W136W 2015
Pages: viii, 152 pages; 24 cm.

Soul rivals: state, militant and pop sufism in Pakistan / Nadeem Farooq Paracha.

Call Number: KIC 297.41095491 P221S 2020
Pages: 115 pages; 22 cm.

Salafi-jihadism: the history of an idea / Shiraz Maher.

Call Number: KIC 297.72 M214S 2016
Pages: xx, 292 pages; 23 cm.

Social Sciences
Lifestyle media in Asia: consumption, aspiration and identity / edited by Fran Martin and Tania Lewis.

Call Number: KIC 302.23095 L722 2016
Pages: xvi, 204 pages: illustrations; 24 cm.
Title: Understanding social media / Sam Hinton and Larissa Hjorth.
Publisher: Los Angeles : Sage, 2019.
Call Number: KIC 302.231 H666U 2019

Title: Analyzing social networks / Stephen P. Borgatti, Martin G. Everett and Jeffrey C. Johnson.
Publisher: Los Angeles : Sage, 2018.
Call Number: KIC 302.3 B732A 2018

Title: Narratives of political violence : life stories of former militants / Raquel da Silva.
Call Number: KIC 303.609469 S586N 2019
Pages: x, 157 pages ; 25 cm.

Title: The era of private peacemakers : a new dialogic approach to mediation / Marko Lehti.
Publisher: Cham : Palgrave Macmillan, 2019.
Call Number: KIC 303.66 L524E 2019
Pages: xv, 263 pages ; 22 cm.

Title: The little book of feminism / Harriet Dyer.
Publisher: Chichester, UK : Summersdale Publishers, 2016.
Call Number: KIC 305.42 D996L 2016
Pages: 94 pages : illustrations ; 15 cm.

Title: Ethnographies of Islam : ritual performances and everyday practices / edited by Baudouin Dupret, Thomas Pierret, Paulo G. Pinto, Kathryn Spellman-Poots.
Call Number: KIC 305.697 E847 2013
Pages: vi, 202 pages : illustrations ; 24 cm.

Title: The Rohingyas : inside Myanmar's hidden genocide / Azeem Ibrahim.
Call Number: KIC 305.697 I14R 2016
Pages: xiv, 235 pages : illustrations, map ; 22 cm.
Muslim identity politics : Islam, activism and equality in Britain / Khadijah Elshayyal.
Call Number: KIC 305.6970941 E495M 2018
Pages: xxiii, 312 pages : illustrations ; 23 cm.

Identity, conflict and politics in Turkey, Iran and Pakistan / Gilles Dorronsoro, Olivier Grojean (editors).
Call Number: KIC 305.8009561 I197 2018
Pages: xi, 282 pages : illustrations, maps ; 22 cm.

Identity, conflict and politics in Turkey, Iran and Pakistan / Gilles Dorronsoro, Olivier Grojean, Emmanuel-Pierre Guittet and R.B.J Walker.
Call Number: KIC 306.2 I612 2017
Pages: xiv, 295 pages ; 24 cm.

The Routledge companion to anthropology and business / edited by Raza Mir and Anne-Laure Fayard.
Call Number: KIC 306.3 R869 2021
Pages: xv, 530 pages : illustrations ; 24 cm.

Language and culture at work / Stephanie Schnurr and Olga Zayts.
Call Number: KIC 306.44 S362L 2017
Pages: viii, 158 pages : illustrations ; 24 cm.

Pakistan's response towards terrorism : a case study of Musharraf regime / by Shabana Fayyaz.
Call Number: KIC 320 F286P 2020
Pages: viii, 258 pages ; 23 cm.
Communism in India: events, processes and ideologies / Bidyut Chakrabarty.
Call Number: KIC 320.5320954 C435C 2014
Pages: xv, 314 pages: illustrations, map; 25 cm

Nationalism and the multination state / Alain Dieckhoff; translated by Cynthia Schoch.
Call Number: KIC 320.54 D559N 2016
Pages: xiii, 215 pages; 22 cm.

Contested ideas of regionalism in Asia / Baogang He.
Call Number: KIC 320.54095 H432C 2017
Pages: 200 pages; 24 cm.

Jihadism transformed: al-Qaeda and Islamic State's global battle of ideas / Simon Staffell, Akil N. Awan, editors.
Call Number: KIC 320.557 J612 2016
Pages: xv, 273 pages: illustrations; 22 cm.

The global muslim brotherhood in Britain: non-violent islамist extremism and the battle of ideas / Damon L. Perry.
Call Number: KIC 320.5570941 P462G 2019
Pages: xii, 257 pages; 25 cm.

Making policy in a complex world / Paul Cairney, Tanya Heikkila, Matthew Wood.
Publisher: Cambridge: Cambridge University Press, 2019.
Call Number: KIC 320.6 C136M 2019
Pages: 76 pages; 23 cm.

Understanding and analyzing public policy design / Saba Siddiki
Publisher: [United Kingdom]: Cambridge University Press, 2020.
Call Number: KIC 320.6 S568U 2020
Pages: 63 pages; 24 cm
Title: Governance : issues and challenges / Abhay Prasad Singh And Krishna Murari.
Publisher: India : Pearson, 2018.
Call Number: KIC 320.954 P911G 2018
Pages: xiv, 370 pages : illustrations ; 23 cm.

Title: Governance for development : political and administrative reforms in Bangladesh / S. Nazrul Islam.
Call Number: KIC 320.95492 I821G 2016
Pages: xiv, 276 pages : illustrations ; 23 cm.

Title: Rethinking the value of democracy : a comparative perspective / Renske Doorenspleet.
Publisher: Cham : Palgrave Macmillan, 2019.
Call Number: KIC 321.8 D691R 2019
Pages: ix, 266 pages ; 22 cm.

Title: Can democracy work? : a short history of a radical idea, from ancient Athens to our world / James Miller.
Call Number: KIC 321.8 M647C 2018

Title: Sayyid Ahmad Barailvi : his movement and legacy from the Pukhtun perspective / Altaf Qadir.
Call Number: KIC 322.1095491209034 Q11S 2015
Pages: xxv, 224 pages ; 22 cm.

Title: Guardians of the Arab state : when militaries intervene in politics, from Iraq to Mauritania / Florence Gaub.
Call Number: KIC 322.509174927 G264G 2017
Pages: vii, 272 pages : illustrations ; 23 cm.

Title: Balancing privacy and free speech : unwanted attention in the age of social media / Mark Tunick.
Call Number: KIC 323.448 T926B 2015
Pages: xiv, 222 pages ; 24 cm.
Title: Women for president : media bias in nine campaigns / Erika Falk.
Call Number: KIC 324.9730082 F191W 2010

Title: Nuclear politics in Asia / edited by Marzieh Kouhi Esfahani and Ariabarzan Mohammadi.
Call Number: KIC 327.1747095 N964 2018
Pages: x, 216 pages : illustration ; 24 cm.

Title: China and the Middle East : venturing into the maelstrom / by James M. Dorsey.
Call Number: KIC 327.51056 D718C 2019
Pages: xi, 278 pages : illustrations, maps ; 22 cm.

Title: Iran's foreign policy after the nuclear agreement : politics of normalizers and traditionalists / by Farhad Rezaei.
Call Number: KIC 327.55 R467I 2019
Pages: xi, 255 pages ; 24 cm.

Title: Presidential government / Benjamin Ginsberg.
Call Number: KIC 352.23 G493P 2016
Pages: xi, 492 pages : illustrations, portraits ; 26 cm

Title: The practice of war : production, reproduction and communication of armed violence / edited by Aparna Rao, Michael Bollig and Monika Bock.
Call Number: KIC 355.02 P895 2007
Pages: xvii, 346 pages : illustrations ; 24 cm.

Title: Rethinking the national security of Pakistan : the price of strategic myopia / Ahmad Faruqui.
Call Number: KIC 355.03305491 F247R 2003
Pages: xxix, 190 pages : illustrations, maps ; 23 cm.
Social welfare policy for a sustainable future: the U.S. in global context / Katherine S. van Wormer, University of Northern Iowa and Rosemary J. Link, Simpson College.

Publisher: Los Angeles: Sage, 2016.
Call Number: KIC 361.610973 V217S 2016
Pages: xxi, 426 pages: illustrations; 24 cm.


Call Number: KIC 361.763 G721 2018
Pages: xviii, 272 pages: illustrations; 22 cm.

Unleashing the power of unconditional respect: transforming law enforcement and police training / Jack L. Colwell, Charles "Chip" Huth.

Publisher: Boca Raton, FL: CRC Press, 2010.
Call Number: KIC 363.22 C727U 2010
Pages: xx, 154 pages: illustrations; 25 cm.

Reducing crime: a companion for police leaders / Jerry H. Ratcliffe.

Call Number: KIC 363.23 R233R 2019
Pages: xviii, 242 pages: illustrations; 20 cm.

Burying Jihadis: bodies between state, territory, and identity / Riva Kastoryano; translated by Cynthia Schoch.

Call Number: KIC 363.325 K194B 2018
Pages: vii, 289 pages: maps; 23 cm.

Victims and perpetrators of terrorism: exploring identities, roles and narratives / edited by Orla Lynch and Javier Argomaniz.

Call Number: KIC 363.325 V642 2018
Pages: xii, 204 pages; 24 cm.
<table>
<thead>
<tr>
<th>Title</th>
<th>Publisher</th>
<th>Call Number</th>
<th>Pages</th>
</tr>
</thead>
</table>
Rethinking madrasah education in a globalised world / edited by Mukhlis Abu Bakar.
Call Number: KIC 370.917671 R438 2018
Pages: xv, 275 pages : illustrations ; 24 cm.

Call Number: KIC 381.41091767 H157 2016

Warrior saints of the Silk Road : legends of the Qarakhanids / by Jeff Eden.
Publisher: Leiden ; Boston : Brill, 2019.
Call Number: KIC 398.2095802 E22W 2019
Pages: ix, 272 pages : illustrations ; 25 cm.

The face : our human story / Debra N. Mancoff.
Call Number: KIC 704.942 M269F 2018
Pages: 303 pages : color illustrations ; 20 cm.

The living line : modern art and the economy of energy / Robin Veder.
Call Number: KIC 709.730904 V415L 2015
Pages: xiv, 405 pages : illustrations (some color) ; 25 cm.

Call Number: KIC 791.082095 W872 2017
Pages: xii, 206 pages : illustrations ; 24 cm.
**Economics**

**Title:** Governing from below: urban regions and the global economy / Jefferey M. Sellers.
**Publisher:** Cambridge ; New York : Cambridge University Press, 2002.
**Call Number:** KIC 330.91732 S467G 2002
**Pages:** xii, 407 pages : illustrations, maps ; 23 cm.

**Title:** Financial markets and institutions / Frederic S. Mishkin, Stanley G. Eakins.
**Publisher:** Harlow, England : Pearson, 2020.
**Call Number:** KIC 332.10973 M678F 2020
**Edition:** Ninth edition.
**Pages:** ix, 284 pages ; 22 cm.

**Title:** Women, literature and finance in Victorian Britain: cultures of investment / Nancy Henry.
**Publisher:** Cham : Palgrave Macmillan, 2018.
**Call Number:** KIC 332.6094109034 H521W 2018
**Pages:** ix, 284 pages ; 22 cm.

**Title:** Kalabagh dam: sifting fact from fiction / by Zafar Mahmood, Chairman, Wapda.
**Publisher:** Lahore : Vanguard Books, 2016.
**Call Number:** KIC 333.91 M215K 2016
**Pages:** xx, 198 pages : illustrations, color maps ; 22 cm.

**Title:** Mapping China's 'one belt one road' initiative / edited by Li Xing.
**Publisher:** Cham, Switzerland : Palgrave Macmillan, 2019.
**Call Number:** KIC 337.5105 M297 2019
**Pages:** xi, 298 pages : illustrations ; 22 cm.

**Title:** The political economies of Turkey and Greece: crisis and change / Mustafa Kutlay.
**Publisher:** Cham : Palgrave Macmillan, 2019.
**Call Number:** KIC 338.9561 K974P 2019
**Pages:** xi, 231 pages : illustrations ; 22 cm.

**Title:** Macroeconomic inequality from Reagan to Trump: market power, wage repression, asset price inflation, and industrial decline / Lance Taylor, New School for Social Research, New York, with contributions from Ozlem Omer.
**Publisher:** Cambridge, United Kingdom ; New York, NY : Cambridge University Press, 2020.
**Call Number:** KIC 339.20973 T238M 2020
**Pages:** xii, 132 pages : illustrations ; 26 cm.
<table>
<thead>
<tr>
<th>Title</th>
<th>Publisher</th>
<th>Call Number</th>
<th>Pages</th>
</tr>
</thead>
</table>
Title: The hound of the baskervilles / Arthur Conan Doyle.
Publisher: Pakistan : Readings, 2016.
Call Number: KIC 823.8 D754H 2016
Pages: 170 pages ; 20 cm.

Facts and inventions : selections from the journalism of James Boswell / edited by Paul Tankard ; with the assistance of Lisa Marr.
Call Number: KIC 824.6 B747F 2014
Pages: xlviii, 442 pages : illustrations ; 25 cm

History and Geography
Title: An ethics of remembering : history, heterology, and the nameless others / Edith Wyschogrod.
Call Number: KIC 901 W994E 1998
Pages: xxi, 280 pages : illustrations ; 24 cm.

Title: Caliphate : the history of an idea / Hugh Kennedy.
Call Number: KIC 909.09767 K351C 2016

Title: The dissident mullah : Ayatollah Montazeri and the struggle for reform in revolutionary Iran / Ulrich von Schwerin.
Call Number: KIC 923.255 S415D 2015
Pages: ix, 283 pages, 8 unnumbered pages of plates : illustrations ; 22 cm.

Title: How death becomes life : notes from a transplant surgeon / Joshua Mezrich.
Call Number: KIC 926.617 M617H 2020
Pages: x, 371 pages ; 20 cm.
Inside the Neolithic mind : consciousness, cosmos and the realm of the gods / David Lewis-Williams and David Pearce.
Call Number: KIC 930.14 L677I 2018
Pages: 320 pages : illustrations (some color), maps ; 20 cm.

Title: The Hijaz : the first Islamic state / Malik R. Dahlan.
Call Number: KIC 953.8 D131H 2018
Pages: xxvii, 560 pages ; 23 cm.

Title: A strange kind of paradise : India through foreign eyes / Sam Miller.
Publisher: London : Jonathan Cape, 2014.
Call Number: KIC 954 M647S 2014
Pages: ix, 421 pages : illustrations, plates, maps ; 23 cm

Call Number: KIC 954.6 H116M 2009
Pages: xiv, 201 pages ; 24 cm.

Call Number: KIC 954.6053 K192 2009
Pages: x, 292 pages : map ; 24 cm.

The tail wags the dog : International Politics and the Middle East / Efraim Karsh.
Publisher: New York : Bloomsbury, 2015.
Call Number: KIC 956.05 K188T 2015

Crowds and sultans : urban protest in late Medieval Egypt and Syria / Amina Elbendary.
Publisher: Cairo ; New York : The American University in Cairo Press, 2015.
Call Number: KIC 962.024 E373C 2015
Pages: xiii, 276 pages ; 24 cm
<table>
<thead>
<tr>
<th>CONTENTS</th>
<th>Bloomberg Businessweek</th>
<th>October 26, 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN BRIEF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPINION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGENDA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>REMARKS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUSINESS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TECHNOLOGY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FINANCE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECONOMICS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>POLITICS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOLUTIONS / BLACK BUSINESSES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PURSUITS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LAST THING</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### IN BRIEF
- Google’s in court ● Purdue avoids it ● A voting stampede
- Trump’s visa reforms will hurt American workers
- A turbulent year at the ECB ● U.S. and German GDP

### COVER TRAIL
- How the cover gets made
  - “This week we’re talking about Robinhood”
- “Actually, it’s a popular investing app with some... interesting problems.”
- “Well, I thought that was a game. Are you saying the fractional shares I bought last night while watching ‘Tiger King’ cost me real money?”
- “Yes, real money. And they have a real email address—but no phone number. You can always call their regulators.”
- “Well, here’s to the dopamine hit of a good roll of the dice.”

### BUSINESS
- ADM cooks up veggie burgers and gluten-free pizza
- Female pilots are rare—and getting rarer in the pandemic

### TECHNOLOGY
- Who needs Disney World when Baby Yoda is on your TV?
- The robot florist mapping the ocean floor
- Personal shoppers are coming to your laptop

### FINANCE
- Robinhood pitched itself as an entertaining way to invest, but Wall Street demands more than fun and games

### ECONOMICS
- A by-the-numbers look at the U.S. recovery
- “America First” didn’t pan out for International Automotive

### POLITICS
- A major Chinese spying plot, or minor visa violations?
- When not going to school means not getting lunch

### SOLUTIONS / BLACK BUSINESSES
- The world of knitting gets more diverse
- Black-owned bookstores have never been busier
- How to keep #BuyBlack going through the holidays
- Issa Rae is on a mission to elevate artists of color

### PURSUITS
- Building your own audio paradise
- The pressing needs of the vinyl renaissance
- This year’s opera: Die Meistersinger von Streaming
- High-def Wi-Fi is here
- One souvenir that won’t collect dust: A song
- This short-throw projector really brings the noise

### LAST THING
- Apple v. patent trolls
"Companies must move beyond box checking and window dressing." PAGE 38
September–October 2020

56 FEATURES

56 MANAGING PEOPLE
Stop Overengineering People Management
The trend toward optimization is disempowering employees.
Peter Cappelli

64 DIVERSITY
How to Promote Racial Equity in the Workplace
A five-step plan
Robert Livingston

74 STRATEGY
Adapt Your Business to the New Reality
Start by understanding how habits have changed.
Michael G. Jacobides and Martin Reeves

82 OPERATIONS
Global Supply Chains in a Post-Pandemic World
Companies need to make their networks more resilient. Here's how.
Willy C. Shih

90 LEADERSHIP
A New Model for Ethical Leadership
Create more value for society.
Max H. Bazerman

98 ENTREPRENEURSHIP
When It's Time to Pivot, What's Your Story?
How to sell stakeholders on a new strategy
Rory McDonald and Robert Bremer

106 INNOVATION
Cultural Innovation
The secret to building breakthrough businesses
Douglas Holt

116 STRATEGY
Joint Ventures and Partnerships in a Downturn
How to think about your existing collaborations—and the new ones you should seek out
James Bannard, Gerard Baynham, and David Ernst

126 TECHNOLOGY
How to Win with Machine Learning
And how to catch up if you’re lagging behind
Ajay Agrawal, Joshua Gans, and Avi Goldfarb

Photograph by ROBERT GOETZFRIED
### THE WORLD TRUMP MADE

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which Past Is Prologue?</td>
<td>12</td>
</tr>
<tr>
<td>Heeding the Right Warnings From History</td>
<td></td>
</tr>
<tr>
<td><em>Margaret MacMillan</em></td>
<td></td>
</tr>
<tr>
<td>Present at the Disruption</td>
<td>24</td>
</tr>
<tr>
<td>How Trump Unmade U.S. Foreign Policy</td>
<td></td>
</tr>
<tr>
<td><em>Richard Haass</em></td>
<td></td>
</tr>
<tr>
<td>The End of American Illusion</td>
<td>35</td>
</tr>
<tr>
<td>Trump and the World as It Is</td>
<td></td>
</tr>
<tr>
<td><em>Nadia Schadlow</em></td>
<td></td>
</tr>
<tr>
<td>The Democratic Renewal</td>
<td>46</td>
</tr>
<tr>
<td>What It Will Take to Fix U.S. Foreign Policy</td>
<td></td>
</tr>
<tr>
<td><em>Ben Rhodes</em></td>
<td></td>
</tr>
</tbody>
</table>
### ESSAYS

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Pandemic Depression</td>
<td>84</td>
</tr>
<tr>
<td>The Global Economy Will Never Be the Same</td>
<td></td>
</tr>
<tr>
<td><em>Carmen Reinhart and Vincent Reinhart</em></td>
<td></td>
</tr>
<tr>
<td>The Tragedy of Vaccine Nationalism</td>
<td>96</td>
</tr>
<tr>
<td>Only Cooperation Can End the Pandemic</td>
<td></td>
</tr>
<tr>
<td><em>Thomas J. Bollyky and Chad P. Bown</em></td>
<td></td>
</tr>
<tr>
<td>Giving Up on God</td>
<td>110</td>
</tr>
<tr>
<td>The Global Decline of Religion</td>
<td></td>
</tr>
<tr>
<td><em>Ronald F. Inglehart</em></td>
<td></td>
</tr>
<tr>
<td>Messiah Complex</td>
<td>119</td>
</tr>
<tr>
<td>How Brazil Made Bolsonaro</td>
<td></td>
</tr>
<tr>
<td><em>Brian Winter</em></td>
<td></td>
</tr>
<tr>
<td>League of Nationalists</td>
<td>132</td>
</tr>
<tr>
<td>How Trump and Modi Refashioned the U.S.-Indian Relationship</td>
<td></td>
</tr>
<tr>
<td><em>Shivshankar Menon</em></td>
<td></td>
</tr>
<tr>
<td>The Kremlin’s Plot Against Democracy</td>
<td>140</td>
</tr>
<tr>
<td>How Russia Updated Its 2016 Playbook for 2020</td>
<td></td>
</tr>
<tr>
<td><em>Alina Polyakova</em></td>
<td></td>
</tr>
<tr>
<td>An Answer to Aggression</td>
<td>150</td>
</tr>
<tr>
<td>How to Push Back Against Beijing</td>
<td></td>
</tr>
<tr>
<td><em>Aaron L. Friedberg</em></td>
<td></td>
</tr>
<tr>
<td>A Grand Strategy of Resilience</td>
<td>165</td>
</tr>
<tr>
<td>American Power in the Age of Fragility</td>
<td></td>
</tr>
<tr>
<td><em>Ganesh Sitaraman</em></td>
<td></td>
</tr>
</tbody>
</table>

### ON FOREIGNAFFAIRS.COM

- [Melinda Gates on the pandemic’s toll on women.](https://foreignaffairs.com)
- [Charles King on how great powers fall apart.](https://foreignaffairs.com)
- [Brenda Gayle Plummer on global support for U.S. civil rights.](https://foreignaffairs.com)

*September/October 2020*
# THE GLOBAL RECKONING WITH RACE

**Civil Rights International**
The Fight Against Racism Has Always Been Global  
*Keisha N. Blain*

**The Fragile Republic**
American Democracy Has Never Faced So Many Threats All at Once  
*Suzanne Mettler and Robert C. Lieberman*

**To Protect and to Serve**
Global Lessons in Police Reform  
*Laurence Ralph*

## REVIEWS & RESPONSES

**One Country, Two Systems, No Future**  
The End of Hong Kong as We Know It  
*Jane Perlez*

**Citizens of the World**
How Cosmopolitanism Made Europe Modern  
*Jerrold Seigel*

**Recent Books**

---

"Foreign Affairs . . . will tolerate wide differences of opinion. Its articles will not represent any consensus of beliefs. What is demanded of them is that they shall be competent and well informed, representing honest opinions seriously held and convincingly expressed. . . . It does not accept responsibility for the views in any articles, signed or unsigned, which appear in its pages. What it does accept is the responsibility for giving them a chance to appear."

Archibald Cary Coolidge, Founding Editor  
Volume 1, Number 1 • September 1922
Contents

The world this week
7 A summary of political and business news

Leaders
9 Free speech
Who controls the conversation?
10 Brexit
Seal the deal
11 Lessons from Microsoft
Blue-sky thinking
12 Financial markets
Young, but not dumb
12 Illegal fishing
Monsters of the deep

Letters
14 On the Uyghurs, Venus, Catholic voters, Zoom meetings

Briefing
15 Social media and free speech
The great clean-up

Asia
18 Facebook in Myanmar
19 Isolated North Korea
20 Jacinda Ardern’s victory
21 Banyan South-East Asia’s woeful governance

China
22 Taking the public's pulse
23 A V-shaped recovery
24 Chaguan A threatening suitor to Taiwan

United States
25 Election uncertainties
26 Trump and energy
27 Trump and trade
28 Campaign in Montana
29 Selling art
30 The Equality Act

The Americas
31 Chile’s constitution
32 Bello Hope for Bolivia

Middle East & Africa
33 Egypt's sham election
34 A pause in the Middle East
35 Tanzania's unfair election
36 Saving Africa's parks
36 A massacre in Nigeria

On the cover
Free speech on social media is too important to be determined by a handful of tech executives: leader, page 9. Under public and official pressure, social-media giants are removing more content. But are they making the right calls? And should it be their decision? Briefing, page 15

• Microsoft after the reboot Satya Nadella has turned the software giant around. Now for the hard part: briefing, page 57. Parts of the digital economy are competitive. Look at the cloud: leader, page 17. The fight back against big tech's feudal lords has begun: Schumpeter, page 56

• Millennial investors: young, not dumb They have become something of a laughing stock this year. But Wall Street can learn from them, and will soon have to: leader, page 17 and analysis, page 60

• Illegal fishing’s terrible scale Dark fleets are devastating fish stocks and abusing crews. Here's how to stop them: leader, page 12 and analysis, page 49

Bagehot A Biden administration would make Boris Johnson's life even more difficult, page 48

We are working hard to ensure that there is no disruption to print copies of The Economist as a result of the coronavirus. But if you have digital access as part of your subscription, then activating it will ensure that you can always read the digital version of the newspaper as well as all of our daily journalism. To do so, visit economist.com/activate

Contents continues overleaf
Contents

Europe
37 A second wave in Europe
38 Swedish defence
38 Georgia’s nasty election
43 France defends free speech
44 Charlemagne: The puny European Parliament

Britain
45 Brexit and the City
48 Bagehot: Biden and Boris

International
49 The horrors of illegal fishing

Business
52 The decline of Italia SpA
54 Trustbusting Google
54 Next Era’s era
55 Bartleby: Military drills
56 Schumpeter: Who owns data?

Briefing
57 Microsoft’s reboot

Finance & economics
60 Millennial finance
61 Who will lead the WTO?
62 Lael Brainard for treasury secretary
62 Price gouging in New York
63 Powerful index providers
64 Bottlenose: Berlin’s tech scene
65 Free exchange: Dissatisfied elites

Science & technology
66 Covid-19 scientists clash
68 A driverless lorry
68 OSIRIS-REX and Bennu
69 Fences and wildlife

Books & arts
70 Giving up on politics
71 A scathing American novel
72 The Spanish civil war
73 North Korean hotels

Economic & financial indicators
76 Statistics on 42 economies

Graphic detail
77 Postal voting could put Joe Biden at a disadvantage

Obituary
78 Samuel Paty, a teacher on the front line

Subscription service
For our full range of subscription offers, including digital only or print and digital bundled, visit Economist.com/offers

The best way to contact our Customer Service team is via phone or live chat. You can contact us on +65 6545 5696; please check our website for up to date opening hours.

© 2020 The Economist Newspaper Limited. All rights reserved. Neither this publication nor any part of it may be reproduced, stored in a retrieval system, or transmitted in any form by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of The Economist Newspaper Limited. Published every week, except for seven-weekly issues, by The Economist Newspaper Limited. The Economist is a registered trademark of The Economist Newspaper Limited.
# CONTENTS

## COVER STORY
03 Will the Construction Industry Revive Pakistan’s Economy?
07 A Question of Affordability
10 Building Dreams on Solid Foundations
12 Green by Design

## LAUNCHES
13 Cleaning Your Home the Unilever Way

## CAMPAIGNS
14 Redesigning Lifestyles
15 Caring for Delite Way

## MAKING WAVES
16 Swiss Miss Has a Makeover

## CAMPAIGN WATCH
17 Campaign Watch

## IN CONVERSATION
18 Hadi Akberali, COO Strategy, Amreli Steel

## AGENCIES
20 Get a Grip
21 Shooting in the New Normal
22 Evolving Towards a Digital-First Lifestyle

## PERSPECTIVES ON CREATIVE
23 Form to Function
24 If You Can’t Beat ’Em, Join ’Em
25 The Voices are Young – But are We Listening?
26 A Few of My Favourite Things

## STRATEGIC APPROACHES
28 Making the Shift to Iconic Branding

## PROFILE
29 Zooming in on Rage

## MEDIA
30 Happy as a Crazy Cow
32 A Warning from History: The Dangers of Programmatic

## OPINION
34 Why are We Failing our Brands?

## TREND
35 Preparing for the Homebody Economy
36 Is This What We Truly Desire?

## BRANDED BUBBLES
37 Changing Karachi Day by Day

## CAMPAIGN REGISTER
38 Campaigns for May-August

## ABOVE-THE-LINE
39 “Bed, Bath & Office – Please”
39 The Endgame

## DESIGNING A POST-PANDEMIC BUILT ENVIRONMENT
19  
A Shoe With No Footprint  
The athletic startup Allbirds' eco-friendly approach has earned it a loyal following. Now the company is doubling down on a running shoe made of natural materials.  
BY SHEILA MARIKAR

24  
What Makes A.I. Look Dumb  
Neural networks excel at discerning images, but words are another story. Teaching computers to read could unlock lucrative opportunities.  
BY JONATHAN VANNAN

30  
After the Oil Rush  
Once flush from vast petroleum reserves, the Canadian province of Alberta is struggling. And the region's citizens are wondering: What now?  
BY KATHERINE DUNN

39  
No Business Succeeds Alone  
HEAD WRITERS: ERIKA FRY AND MATT HEIMER  
A common thread in our sixth annual Change the World list: Collaboration, even among rivals, has become a business superpower.

40  
The Vaccine Makers  
BY CLIFTON LEAF  
Drugmakers are teaming up like never before to fight COVID-19. The benefits could last well beyond the pandemic.

ILLUSTRATION BY MUQAARAA
FEATURES

MANAGING RISK
70 Overcoming the Innovator’s Paradox
Although many people say they like radical ideas, the greater the risk and uncertainty, the more skittish potential supporters become. Fortunately, there are strategies for breaking through.
BY JEFF DYER, NATHAN FURR, AND MIKE HENDRON

COMPETITION
78 Competing on Customer Outcomes
Three revenue models can help companies capitalize on customer satisfaction.
BY MARCO BERTINI AND ODED KOENIGSBERG

CORPORATE IMPACT
85 Why Social Responsibility Produces More Resilient Organizations
Companies have more staying power when management decisions consider a diverse range of interests.
BY SARAH KAPLAN

COLUMN
96 WHAT NEW NORMAL SHOULD WE CREATE?
BY MORELA HERNANDEZ

IN EVERY ISSUE
91 Executive Briefings
Summaries of feature articles in this issue.

5 THE 2020 RICHARD BECKHARD MEMORIAL PRIZE
BY THE MIT SMR EDITORS

FRONTIERS

7 BEING THE AGILE BOSS
Leading through radical uncertainty means helping your team and your network create the future with you.
BY LINDA A. HILL

11 GETTING SMARTER ABOUT SMART BUILDINGS
Intelligent environments can make the workplace safer and improve collaboration.
BY ETHAN BERNEST

13 CAN SURVEILLANCE AI MAKE THE WORKPLACE SAFE?
It’s possible to protect employees’ health and well-being by digitally monitoring their behavior, but how far should companies go?
BY TOMAS CHAMORRO-PREUZIC

16 CONFRONTING THE UNCOMFORTABLE REALITY OF WORKPLACE DISCRIMINATION
The U.S. is finally addressing racism in law enforcement. While we’re at it, let’s tackle workplace discrimination as well.
BY DEREK R. AVERY AND ENRICA N. RUGGS

19 HOW TO SUSTAIN YOUR ORGANIZATION’S CULTURE WHEN EVERYONE IS REMOTE
The coronavirus pandemic’s office exodus risks diminishing company culture unless leaders take action to support it.
BY JENNIFER HOWARD-GREAVILLE

22 WHY OUR KNOWLEDGE ECONOMY CAN SURVIVE THE NEW AGE OF PESTILENCE
Today’s engine of economic growth may lessen the long-term economic impact of the COVID-19 pandemic.
BY JOEL MOYKR
CONTENTS

Proof

6

Every Mother's Son
African-American mothers pose with the sons they fear losing to violence, in the photography project "Stranger Fruit."

By Lonnne O'Neal
Photographs by Jon Henry

Explore

15

The Big Idea
A Map for Aliens in Search of Earth
To replace the aging star map the Voyagers took into space, this pair devised a new one.

By Nadia Drake
And Scott Ransom

Artifact

A Shark's Perspective
A Crittercam placed on a shark's fin captures photos where humans cannot go.

By Nina Strochlic

Also

Sounds to Renew Reefs
Bee Bites Spur Pollen

Coronavirus

28

Decoder

How COVID-19 Affects Animals
In addition to people, the disease has hit lions, tigers, mink, and more.

By Natasha Daly

Innovator

Disease Detective
This bioarchaeologist studies the DNA of ancient pathogens.

By Theresa Machemer

Through the Lens

Sorrow and Resilience
A photographer covers the virus, and catches it.

By Danny Wilcox Frazier
And Cassandra Spratling

On the Cover
A male Deinonychus stands over hatchlings and eggs he's brooding. Recent studies have produced many new insights into dinosaurs' looks and behaviors.

Painting by Davide Bonadonna
Features

Election 2020: America’s Test

Trump and Biden sell dueling visions to a weary electorate
By Molly Ball 24

Everything to know about casting your ballot 30
The false narrative of voter fraud
By Vera Bergengruen 36

Efforts to suppress the Black vote
By Justin Warland 38

The election is already in court
By Alana Abramson 39

A new “army” of poll watchers
By W.J. Hennigan and Vera Bergengruen 40
Exhale: the U.S. will be O.K.
By Molly Ball 42

The Childcare Crisis
Day cares may not survive
By Abby Vesoulis 46
A hopeful model
By Belinda Luscombe 49

The Great Reset
Out of the crucible: an inclusive, sustainable economy
By Mariana Mazzucato 56

Tackling tech’s social problem
By the Duke and Duchess of Sussex 62

Poland’s coal and Europe’s future
By Justin Warland 64

A more virtuous capitalism is possible
By Klaus Schwab 72

An architect’s blueprint for earth
By Ciara Nugent 76

Work and flow
By Alana Semuels 83

Plus: Viewpoints from Jane Fraser, Darren Walker, Yuriko Koike, Ian Bremner, Kristalina Georgieva, Marcus Galperin, Ngozi Okonjo-Iweala, Yo-Yo Ma and more 59

Best Fantasy Books
The 100 greatest works of all time;
preface by N.K. Jemisin 91
Industrialization and growing consumerism have led to the need for developing an effective transportation system. Key to the success of any product or services lies in ease of its availability for the user. A high-quality product or service that is not accessible when required by the potential customer is bound to fail. It is as important, if not more, to identify and develop the best logistics system, as is the product design, manufacturing equipment and human resource. Logistics is about planning and executing how the resources are acquired, stored and then the finished product or service is transported and made available in the relevant markets and customers.....
LUMS publications indexed in Scopus for October, 2020


Shao, X. F., Liu, W., Li, Y., Chaudhry, H. R., & Yue, X. G. Multistage implementation framework for smart supply chain management under industry 4.0. Technological Forecasting and Social Change, 162, 120354.


### Monthly Statistics

#### Daily Average Library Usage (Aug-Oct 2020)

- **Library Visitors**
- **Website Visitors/Portal Searches**

<table>
<thead>
<tr>
<th>Month</th>
<th>Library Visitors</th>
<th>Website Visitors/Portal Searches</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUG-19</td>
<td>1000</td>
<td>54</td>
</tr>
<tr>
<td>AUG-20</td>
<td>1142</td>
<td>793</td>
</tr>
<tr>
<td>SEP-19</td>
<td>2597</td>
<td>1943</td>
</tr>
<tr>
<td>SEP-20</td>
<td>89</td>
<td>1224</td>
</tr>
<tr>
<td>OCT-19</td>
<td>3099</td>
<td>1951</td>
</tr>
<tr>
<td>OCT-20</td>
<td>24</td>
<td>12</td>
</tr>
</tbody>
</table>

#### Daily Databases Usage Statistics (Aug-Oct 2020)

- **Average Daily Searches/Downloads**
- **Per User Monthly Searches/Downloads (FTE)**

<table>
<thead>
<tr>
<th>Month</th>
<th>Average Daily Searches/Downloads</th>
<th>Per User Monthly Searches/Downloads (FTE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUG-19</td>
<td>6560</td>
<td>48</td>
</tr>
<tr>
<td>AUG-20</td>
<td>6610</td>
<td>49</td>
</tr>
<tr>
<td>SEP-19</td>
<td>11758</td>
<td>84</td>
</tr>
<tr>
<td>SEP-20</td>
<td>9663</td>
<td>69</td>
</tr>
<tr>
<td>OCT-19</td>
<td>15621</td>
<td>116</td>
</tr>
<tr>
<td>OCT-20</td>
<td>12216</td>
<td>90</td>
</tr>
</tbody>
</table>


- **Total Issue/Receipt of Books**
- **Online Renewal & Reserve**

<table>
<thead>
<tr>
<th>Month</th>
<th>Total Issue/Receipt of Books</th>
<th>Online Renewal &amp; Reserve</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUG-19</td>
<td>2170</td>
<td>4255</td>
</tr>
<tr>
<td>AUG-20</td>
<td>645</td>
<td>972</td>
</tr>
<tr>
<td>SEP-19</td>
<td>4796</td>
<td>5177</td>
</tr>
<tr>
<td>SEP-20</td>
<td>624</td>
<td>447</td>
</tr>
<tr>
<td>OCT-19</td>
<td>4721</td>
<td>6087</td>
</tr>
<tr>
<td>OCT-20</td>
<td>747</td>
<td>354</td>
</tr>
</tbody>
</table>
D.H.A, Lahore Cantt. 54792 Lahore, Pakistan
Phone: +92 42 3560 8000
Fax: +92 42 3572 5048
URL: library.lums.edu.pk

www.lums.edu.pk