

Monthly



Bulletin No. 43 Feb 2023

Table of Contents

- News Corners
 - LUMS and Library News
- Indexing of News Papers
 - The News, Dawn, Business Recorder, The Nation
- 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



British Deputy High Commissioner Karachi Visits LUMS to Explore Education Partnership Opportunities

Sarah Mooney, Deputy High Commissioner Karachi and Trade Director for Pakistan, on a visit to LUMS on January 26, expressed the desire to identify synergies to further explore education partnership opportunities with LUMS.

She was joined by other representatives from the British High Commission including Clara Strandhoj, Head of Lahore Office and Rehan Shahid, Senior Trade Policy Advisor. At the meeting, LUMS was represented by Dr. Arshad Ahmad, Vice Chancellor; Dr. Tariq Jadoon, Provost; Mohammed Ali Khan, Executive Director of Strategic Initiatives, and Nuzhat Kamran, Director of Advancement.

Ms. Mooney spoke about the need to collaborate with universities like LUMS that bring together diverse people and perspectives. "Wherever people from different disciplines come together and encourage free-flowing conversation, that's where you find the right ideas."

She elaborated on the need to establish linkages with universities and institutes in the UK, which the British High Commission can facilitate in establishing. Such innovative collaborations are essential to explore innovative answers, she said. "Industry wants solutions for problems that they are looking at right now. They are not looking to the horizon 15 years from now which is going to require different data sets and a different understanding of behavioral science." Universities like LUMS can provide guidance in this regard, she added. <u>Read More</u>

Spanish Ambassador Visits LUMS

His Excellency Mr. Jose Antonio de Ory, the Spanish Ambassador to Pakistan, visited LUMS on January 20 to discuss opportunities of possible collaboration. He was accompanied by Ms. Inés Mena Gómez de Merodio, Head of Consular Affairs, Embassy of Spain; Mian Jalal Salahuddin, the Honorary Consul of Spain for Punjab and Ms. Farah Farouk, Head of Business Development, Jalal Salahuddin Bespoke Events & Creative Services.

They were welcomed by LUMS' leadership, including Mr. Abdul Razak Dawood, Pro Chancellor; Dr. Arshad Ahmad, Vice Chancellor; Mr. Muhammad Ali Khan, Executive Director, Strategic Initiatives; Dr. Furrukh Khan, Director, Office of International Affairs, and Ms. Nuzhat Kamran, Director, Office of Advancement. Also present were faculty members and staff who have previous or existing connections with Spain.

Ms. Kamran shared an overview of LUMS, its 'Learning Without Borders' perspective and the inclusive, interdisciplinary practices in place. Mr. Khan talked about the importance of internationalisation and forming lasting connections with the University's foreign counterparts. He also noted that Spain is renowned for its high-quality business schools and could be a potential avenue for collaboration. <u>Read</u> <u>More</u>

President of Pakistan and LUMS Leadership Discuss the Future of Higher Education in Pakistan

The President of Pakistan and Chancellor, LUMS, Dr. Arif Alvi, visited the University on January 27, 2023 to meet the LUMS leadership.

He was welcomed by Mr. Abdul Razak Dawood, Pro Chancellor, LUMS; Mr. Shahid Hussain, Rector; Members of the Management Committee; Dr. Arshad Ahmad, Vice Chancellor, LUMS; Dr. Tariq Jadoon, Provost, LUMS and Dr. Muhammad Sabieh Anwar, Ahmed Dawood Chair, Dean, Syed Babar Ali School of Science and Engineering.

Ms. Nuzhat Kamran, Director, Office of Advancement apprised the President of the University's strategic priorities, latest accolades, and the impactful research being conducted. Dr. Alvi appreciated the work being done at LUMS and assured the leadership of his support for the University's effort to promote quality education in the country.

Dr. Alvi also met Founding Pro Chancellor, Syed Babar Ali, and members of the University Advisory Board. They exchanged ideas on the current state of higher education in Pakistan and what learning must entail at this level. They also discussed the role of LUMS in the country's progress over the next decade. <u>Read</u> <u>More</u>

LUMS Students and Recruiters Network at Annual Career Fair 2023

Lahore, February 4th, 2023: Ranked as the top university in Pakistan by QS Graduate Employability Ranking 2022, LUMS has a strong network of 1,600 recruiting partners that help students find placements. The Career Services Office (CSO) at the University has several programmes in place for supporting students towards their career readiness, exploration, and getting the right job. One such initiative is the annual Career Fair by CSO that aims to provide opportunities to students for gainful employment while strengthening their partnership with existing and prospective employers.

LUMS hosted its milestone annual Career Fair this Saturday with participation from notable organisations across multiple industries. The Career Fair welcomed around 200 national and international reputed organisations. The engagement between students and recruiters included activities such as extensive on-spot screening interviews, seeking information about each other and submission of resumes. Moreover, organisation representatives also counselled students regarding their career choices and job market requirements. <u>Read More</u>

The Transformational 'Ambassadors for Change' Programme at LUMS

'Quality Education for All' is one of the SDGs closest to the LUMS Centre for Business and Society's heart and vision. The Centre actively works towards creating opportunities that not only offer educational empowerment to society but also give a platform to the LUMS students to give back to the community through their dedication to the cause.

With the aim to create and inspire sustainable change, the Centre for Business and Society (CBS), LUMS, in partnership with The Citizens Foundation (TCF), recently conducted the 4th cycle of its flagship 'CBS Ambassadors for Change Programme'. The orientation for the educational programme was held on January 15, 2023, at the Suleman Dawood School of Business (SDSB). The transformational three-month-long, programme is being attended by 76 TCF students, supported by a cohort of 27 volunteers, selected by CBS from the LUMS student body, who are participating as teachers and coordinators. <u>Read More</u>

More Than 90 Trees Replanted Throughout the LUMS Campus

The LUMS campus is home to a diverse ecosystem with more than 900 trees belonging to hundreds of species, many of which are native to this geographical region.

Recently, several trees had to be removed from the Library Garden, the site for the new Central Building. To save and maintain the rich green environment of LUMS, the General Administration and Services department, along with the horticulture team, carefully removed all the trees and replanted them in different places in the campus, thus giving them a new life.

This new space, named the Yusuf H. Shirazi Complex, will house six centres at LUMS, and will be the central point of collaboration where students and researchers can get together and exchange ideas. The building will be utilised to hold classes, seminars, workshops, conferences, and various events. <u>Read More</u>

LUMS History Faculty Wins Prestigious Turriano ICOHTEC Prize

Faculty at the Mushtaq Ahmad Gurmani School of Humanities and Social Sciences (MGSHSS) are making an impact around the world through their research, teaching, and publications. In recent news, Associate Professor of History, Dr. Waqar Zaidi was awarded the Turriano ICOHTEC Prize for Young Historians, for his book, *Technological Internationalism and World Order: Aviation, Atomic Energy, and the Search for International Peace 1920-1950.*

This award, organised by the 2022 International Committee for the History of Technology (ICOHTEC) and sponsored by Fundación Juanelo Turriano, recognises the best first/early career book in the history of technology. Dr. Zaidi was selected for demonstrating rigour, intellectual bravery, and readability in combining the history of technology with the history of international relations. The prize-winning book will be presented and discussed at a special session of the organisation's international symposium. <u>Read</u> <u>More</u>

LUMS Faculty Win European Union Grant for Green Energy Solutions

Two Electrical Engineering faculty, Dr. Hassan Abbas Khan and Professor Nauman Ahmad Zaffar at the Syed Babar Ali School of Science and Engineering, LUMS, have won the European Horizon grant, funded by the European Union, to develop technology for rural energy provisioning.

This prestigious funding is aimed for a ground-breaking project titled, Low-cost, circular, plug-and-play, off-grid energy for remote locations including Hydrogen (LoCEL-H2) a response to a call for sustainable, secure and competitive energy supply. The project has been awarded to a consortium of ten international entities (universities and industry partners) with a total consortium funding of about 8.7 million euros for 4 years. LUMS is taking the lead in the development of a key technology and the University's share is 1.384 million euros, including 25 per cent overhead. <u>Read More</u>

LUMS University Advisory Board Comes Together To Discuss Future Directions

The LUMS University Advisory Board plays a key role in helping to shape the overall direction of the university, and in ensuring that it remains focused on its mission and goals. Comprised of renowned academics and experts from some of the best universities of the world, the group brings a wealth of experience to the table and plays a crucial role in providing guidance and support to LUMS as it strives to achieve its mission.

The 5th <u>University Advisory Board</u> (UAB) meeting was held in the last week of January 2023. Members came together to reflect on the learnings from the past year, share their global experiences with the LUMS leadership and also discuss current trends and opportunities in higher education to help lay the foundation of future initiatives at the University. Joining the UAB were members of the LUMS Management Committee including Syed Babar Ali, Founding Pro Chancellor; Mr. Abdul Razak Dawood, Pro Chancellor; Mr. Shahid Hussain, Rector and Dr. Arshad Ahmad, Vice Chancellor, LUMS. <u>Read More</u>

Leaders at LUMS: A Captivating Conversation with Mr. Zain Hak

The 18th session of Leaders at LUMS was an inspirational dialogue about management practices, leadership styles, sports, and work-life balance between Mr. Zain Hak, Global Vice President, Agriculture and Forestry, Shell, and Mr. Mohammed Ali Khan, Executive Director, Strategic Initiatives at LUMS.

An MBA graduate from Cambridge, Mr. Hak has 28 years of experience in refining, marketing, trading and supply management markets in Latin America, Africa, Japan, Oceania, Europe and the Caribbean. As Global Vice President, he also serves as Chairman on the board of Shell Pakistan Ltd. Prior to that, he held the position of General Manager Asia for Shell Fleet Solutions, where he developed the business to a point where Shell gained a prominent role in offering fleet, mobility and energy solutions across Asia. <u>Read More</u>

INDEXING OF NEWSPAPERS

Agricultural General:

- Engro Fertilizers Limited. BR, 01st Feb 2023.
- Engro Polymer & Chemicals Limited. BR, 10th Feb 2023.
- Matco Foods Limited. BR, 27th Feb 2023.
- Farmers seek development of local animal breeds. Daily Dawn, 09th Feb 2023.
- Tea crisis looms as prices surge ahead of Ramazan. Daily Dawn, 12th Feb 2023.
- Top three sugarcane producing farmers to get Rs2.2m cash prizes in Punjab. The Nation, 01st Feb 2023.
- China potentially big market for Pakistani potatoes. The Nation, 05th Feb 2023.
- Poor infrastructure hinders development of agriculture in Pakistan. The Nation, 09th Feb 2023.
- Fertilizer dealer booked for selling urea on exorbitant prices. The Nation, 15th Feb 2023.
- Pakistan can significantly reduce post-harvest losses by adopting latest grain storage technologies. The Nation, 16th Feb 2023.
- Govt attaches top priority to agriculture development, says Ahsan Iqbal. The Nation, 19th Feb 2023.
- PBF asks Punjab government to revise wheat price. The Nation, 20th Feb 2023.
- Pakistan's oilseed industry to bloom under Pak-China agri cooperation. The Nation, 26th Feb 2023.
- Punjab govt to fix minimum Rs 3,900 per maund wheat support price. The Nation, 26th Feb 2023.
- PBF stresses horticulture promotion to mitigate food insecurity. The Nation, 27th Feb 2023.
- Naqvi forms task force to resolve farmers' issues. The News, 05th Feb 2023.
- Sindh notifies wheat support price at Rs4,000. The News, 10 Feb 2023.
- Mini-budget Rs2,000bn Kissan Package to continue. The News, 17th Feb 2023.
- Off-season management vital to increase cotton yield. The News, 21 Feb 2023.
- Punjab initiates action against sugar mills sitting on farmers' dues. The News, 22nd Feb 2023.
- Sazgar temporarily shuts down car plant on raw material shortage. The News, 25th Feb 2023.
- Punjab raises wheat support price to Rs3,900 40kg. The News, 26th Feb 2023.

Auto and Allied:

- Likely output dip in Feb, Mar. BR, 04th Feb 2023.
- Al-Ghazi Tractors Limited. BR, 07th Feb 2023.
- Indus Motors Company Limited. BR, 16th Feb 2023.
- Automakers suspend production. Daily Dawn, 01st Feb 2023.
- Auto industry seeks end to import curbs. Daily Dawn, 03rd Feb 2023.
- Cars get costlier amid uncertain delivery dates. Daily Dawn, 07th Feb 2023.
- Automakers pass on GST hike to buyers. Daily Dawn, 22 Feb 2023.
- Motorbikes, three wheelers' sale drops 32.47pc in 7 months. The Nation, 19th Feb 2023.

- Electric car sales gain pace despite hurdles. The News, 02nd Feb 2023.
- Car sales plunge 65pc in January. The News, 14th Feb 2023.
- Indus Motor half-year profitplunges 74pc on lower sales. The News, 15th Feb, 2023..
- Cars, tires, textile factories have shut in crisis-hit Pakistan. The News, 19th Feb 2023.

Banking Pakistan:

- Askari Bank Limited. BR, 20th Feb 2023.
- Standard Chartered Pakistan delivers record financial performance. The Nation, 21st Feb 2023.
- Policies for digital banking. The News, 17th Feb 2023.
- Policies for digital banking. The News, 24th Feb 2023.

Cement and Construction:

- Cement's many silver linings. BR, 10th Feb 2023.
- Cherat Packaging Limited. BR, 21st Feb 2023.
- Kohat Cement Company Limited. BR, 22nd Feb 2023.
- Bestway Cement starts production of cement at its brownfield Hattar Plant. The Nation, 21st Feb 2023.

Chemical and Pharmaceutical Industry:

- Ittehad Chemicals Limited. BR, 28th BR, 2023.
- Pharma crisis. The News, 09th Feb 2023.

Communication & Transportations:

• Smeda, JAZZ to colaborate for digitilisaiton of SME sector. The Nation, 28th Feb 2023.

Economic Budget, Condition:

- An enabling environment for reform. BR, 02nd Feb 2023.
- SBP: de jure, not de facto, autonomy. BR, 03rd Feb 2023.
- Big rise in poverty, unemployment. BR, 04th Feb 2023.
- WB board to consider \$78m 'digital economy' project next month. BR, 05th Feb 2023.
- FBR, IMF & revenue targets. BR, 10th Feb 2023.
- Dire need of investment in Pakistan.BR, 12th Feb 2023.
- Budgetary outcome in 1HFY23. BR, 14th Feb 2023.
- Better late than never, or just too late. BR, 16th Feb 2023.
- Inflation: worst in history. Br, 16th Feb 2023.
- Fiscal year 2022-23. BR, 17th Feb 2023.
- Surging govt debt. BR, 21st Feb 2023.
- Why do all roads lead to more taxes. BR, 22nd Feb 2023.
- Countering illicit financial flows. BR, 24th Feb 2023.
- Progressive fiscal policy. BR, 28 Feb 2023.
- If Pakistan defaulted. Daily Dawn, 06th Feb 2023.
- Grey market loses lustre as banks offer higher rates. Daily Dawn, 08th Feb 2023.

- Roadmap to reduce distortions in economy unveiled. Daily Dawn, 10th Feb 2023.
- Govt implements revenue measures from 15th to secure \$1.2bn tranche early. Daily Dawn. 12th Feb 2023.
- Current financial crisis and solutions discussed. Daily Dawn, 13th Feb 2023.
- Rupee gains 3.4pc vs dollar in 11 days. Daily Dawn 2023.
- Dar tables mini budget to unlock IMF funding. Daiy Dawn, 16th Feb 2023.
- FDI doubles to \$222m. Daily Dawn, 21st Feb 2023.
- 200bps rate hike likely in surprise SBP move. Daily Dawn 24th Feb 2023.
- FBR exceeds tax collection target for January by Rs4 billion. The Nation, 01st Feb 2023.
- World Bank lauds pace of reforms for sales tax harmonization. The Nation, 11th Feb 2023.
- Fitch downgrades Pakistan's Long-Term Foreign. The Nation, 15th Feb 2023.
- Inflation in Pakistan could average 33pc in first half of 2023 Moodys economist. The Nation, 16th Feb 2023.
- Current account deficit drops to 21-month low of \$242 million in Jan. The Nation, 21st Feb 2023.
- Economic reforms vital to avoid another IMF bailout in next budget. The Natin, 27th Feb 2023.
- Inflation hits 48-year high in January. The News, 02nd Feb 2023.
- SBP's forex reserves rise \$276 million to \$3.19 billion. The News, 17th Feb 2023.
- Breaking the IMF cycle. The News, 22nd Feb 2023.

Economic Development, Planning:

- Redefining Pakistan's economy. BR. 01st Feb 2023.
- Inflation: The anchor drops! BR, 02nd Feb 2023.
- IMF and the ideal of accountability. BR, 05th Feb 2023.
- The mishandling of economy continues. BR, 06th Feb 2023.
- Strategy for resource mobilization. BR, 07th Feb 2023.
- Sinking revenues and IMF conditionalities. BR, 11th Feb 2023.
- Pakistan: grave economic distress. BR, 13th Feb 2023.
- New gas tariff and circular debt. BR, 15th Feb 2023.
- Dar presents Rs170bn tax measures. BR, 16th Feb 2023.
- IMF programme & reforms. BR, 17th BR, 2023.
- Who has cost Pakistan more. BR, 20th Feb 2023.
- Year ended Dec 31, 2022. BR, 21st Feb 2023.
- The floundering economy. BR, 27th Feb 2023.
- Tax collection exceeds target in January. Daily Dawn, 01st Feb 2023.
- It is time the Fund did it. Daily Dawn, 06th Feb 2023.
- Tax ratio drops to 4.4pc in first half. Daily Dawn, 09th Feb 2023.
- Roadmap to reduce distortions in economy unveiled. Daily Dawn, 11th Feb 2023.
- January remittances fall to 31-month low. Daily Dawn, 14th Feb 2023.
- KP governor supports LCCI demand for Charter of Economy. The Nation, 08th Feb 2023.
- Pakistan repays \$2.58b in first quarter. The Nation, 12th Feb 2023.

- Govt additional tax measures' annual impact will be over Rs500b BMP. The Nation, 13th Feb 2023.
- Senate Standing Committee on Finance discusses mini-budget. The Nation, 17th Feb 2023.
- Govt determined to set economy on stability, growth trajectory Ishaq Dar. The Natin, 26th Feb 2023.
- NA panel okays Rs298.44b budget proposal for power sector for FY2023-24. The Nation, 28th Feb 2023.
- Surviving inflation. The News, 02nd Feb 2023.
- Recalibrating governance Part III. The News, 03rd Feb 2023.
- Recalibrating governance. The News, 10Feb 2023.
- Rupee notches best in 2-week on improved dollar inflows. The News, 15th Feb 2023.
- Inflation in Pakistan could average 33pc in H1 2023, says Moodys economist. The News, 16th Feb 2023.
- Preventing Pakistan default will depend on China. The News, 21st Feb 2023.
- Economic dystopia incentivized. The News, 28th Feb 2023.

Education Policies & Related:

- Schoolchildren highlight child labour through artworks. Daily Dawn, 02nd Feb 2023.
- Education: rural futures. Daily Dawn, 11th Feb 2023.
- Students, parents flock DAWN Education Expo. Daily Dawn, 12th Feb 2023.
- Bad `education. Daily Dawn 23, 2023.
- HEC for joint work on entrepreneurship promotion in Pakistan. The Nation, 02nd Feb 2023.
- Governor terms technical education key to success. The Nation, 11th Feb 2023.
- Outcome-based education. The Nation, 11th Feb 2023.
- AJK cabinet approves new Education Policy 2023-2040. The Nation, 12th Feb 2023.
- Empowering youth through digital skills in Pakistan. The Nation, 15th Feb 2023.
- Improving higher education. The Nation, 18th Feb 2023.
- University of Oxford faculty to attend teacher education conference in Pakistan. The News, 02nd Feb 2023.
- Universities' decision to deny admission to foreign-educated students overturned. The News, 03rd Feb 2023.
- Govt urged to revive HEC Ordinance 2002 in its original form. The News, 04th Feb 2023.
- Climate education. The News, 06th Feb 2023.
- Education inequality. The News, 08th Feb 2023.
- Businesses slam mini-budget, question taxation measures. The News, 16th Feb 2023.
- Punjab governor approves summaries for universities. The News, 16th Feb 2023.
- HEC set to establish NAHE regional centre in Punjab. The News, 18th Feb 2023.
- HEC set to establish NAHE regional centre in Punjab. The News, 19 Feb 2023.
- COMSATS lecturer fired for asking 'immoral' question in exam. The News, 21st Feb 2023.
- Ahsan asks private sector to join govt's drive against illiteracy and disease. The News, 22nd
 Feb 2023.
- Punjabi as medium of education demanded. The News, 22nd Feb 2023.

Environment:

- Managing the Green Climate Fund. Daily Dawn, 27 Feb 2023.
- China's support to help promote green energy in Pakistan. The Nation. 22nd Feb 2023.
- For Pakistan, climate change is primarily a water challenge. The News, 12th Feb 2023.
- Varsities told to teach subject related to climate change. Thw News, 13th Feb 2023.

Energy:

- Thar coal-based power plant. BR, 08th Feb 2023.
- Will PPAs become road blocks to solar energy 'revolution'. BR, 08th Feb 2023.
- IMF programme and energy crisis. BR, 11th Feb 2023.
- Democratisation of energy, BR, 19th 2023.
- Dasu hydropower project. BR, 20th Feb 2023.
- Transmission constraints leave Thar plants underutilized. Daily Dawn 24 Feb 2023.
- Indus Water Treaty The past, present and future. The Nation, 05th Feb 2023.
- KE, CTGSAIL sign MoU to explore 1,000MW renewable energy projects. The Nation, 07th Feb 2023.
- Pakistan all set to import additional 100MW electricity from Iran. The Nation, 07th Feb 2023.
- Utilisation of Thar coal crucial for Pakistan's energy needs. The Nation, 07th Feb 2023.
- PPIB achieves COD of country's largest Thar coal based project. The Nation, 08th Feb 2023.
- FCA for Dec 2022. The Nation, 10th Feb 2023.
- PM directs speedy completion of wind, solar energy projects. The Nation, 13th Feb 2023.
- PPIB announces achievement of COD of Thar coal based 330MW ThalNova Power Project. The Nation, 18th Feb 2023.
- Altering the Indus Water Treaty. The Nation, 19th Feb 2023.
- Chinese policy model can open up vistas of investment in renewable energy in Pakistan. The Nation, 23rd Feb 2023.
- Outflow of \$1.15b can be saved through energy efficiency. The Nation, 26th Feb 2023.
- PM inaugurates 1,100MW K-3 nuclear power plant. The News, 03rd Feb 2023.
- Energy in Gilgit-Baltistan. The News, 06th Feb 2023.
- Lawmakers term Thar as bulwark of country's future energy security. The News, 06th Feb 2023.
- WAPDA to add 10,000MW hydroelectricity by 2030. The News, 09th Feb 2023.
- German auto brands refute reports of LCs with 'ludicrous sums'. The News, 10th Feb 2030.
- Kicking a cheap energy addiction. The News, 18th Feb 2023.
- Thar coal-based power plant starts commercial operations. The News, 18th Feb 2023.
- Kicking a cheap energy addiction. The News, 19th Feb 2023.
- Gilgit-Baltistan's energy access. The News, 21st Feb 2023.
- CPHGC completes 1,320MW coal-fired power plant in Hub. The New, 23th Fake lyna pata ho.
- KE to add 1,182MWrenewable energy by 2030. The News, 26th Feb 2023.

Environment:

- Court bans tree cutting in educational institutes. Daily Dawn, 23 Feb 2023.
- WWF Pakistan holds workshop on climate change. The Nation, 03rd Feb 2023.

Imports and Exports:

- Foreign exchange crisis to severely affect industrial sector. The Nation, 05th Feb 2023.
- Steel, construction sectors hit hard by import restrictions. The Nation, 05th Feb 2023.

Insurance industry:

- Interview with Syed Ali Hassan Zaidi. BR, 13th Feb 2023.
- Arrangements finalised for digital census. The News, 28th Feb 2023.

Information Technology:

- Surviving in an AI world. The Nation, 08th Feb 2023.
- Pakistan earns \$1,333 million from IT services' export in 6 months. The Nation, 28th Feb 2023.

Industrial Policy and Plan:

- Steel industry. BR, 06th Feb 2023.
- Packages Limited. BR, 08th Feb 2023.
- Security Papers Limited. BR, 09th BR, 2023.
- Industrial sector attracting huge investment CEO KP-EZDMC. BR, 13th Feb 2023.
- Treet Corporation Limited. BR, 17th Feb 203
- Textile exports drop by over 8pc to \$10.04b in seven months. The Nation, 18th Feb 2023.
- Governor for promotion of chemical sector. The News, 08th Feb 2023.
- AJK PM urges business community to set up industrial units. The News, 23rd Feb 2023.

LUMS:

- Ahsan Iqbal stresses modernising civil services for progress of nation. The Natin, 25th Feb 2023.
- Career fair welcomes 200 companies. The News, 07th Feb 2023.

Sugar and Allied Industry:

- Noon Sugar Mills Limited. BR, 02nd Feb 2023.
- Shakarganj Limited. BR, 03rd Feb 2023.
- Lotte Chemical Pakistan Limited. BR, 15th Feb 2023.
- Sugar industry. BR, 24th Feb 2023.

Textile Industry:

- Cotton prices be careful of what you wish for!. BR, 14th Feb 2023.
- Jul-Jan textile group exports down 8.17pc YoY. BR, 18th BR, 2023.
- Khyber Textile Mills. BR, 24th Feb 2023.
- Pakistan's textile industry. BR, 26th Feb 2023.
- Textile exports fall for fifth consecutive month. Daily Dawn, 18th Feb 2023.

- ILO toolset improves workers` condition in garment industry. Daily Dawn, 19th Feb 2023.
- Textile exports hit hard by shortage of raw materials, depreciation of rupee. The Nation, 16th Feb 2023.
- Kohinoor Textile to buy back 10pc of outstanding shares. The News, 07th Feb 2023.
- Textile sector urges govt not to abolish RCET under IMF pressure. The News, 15th Feb 2023.

Trade:

- Jul-Jan trade deficit shrinks 31.97pc to \$19.632 YoY. BR, 03rd Feb 2023.
- Visit to offices of LCCI. BR, 05th Feb 2023.
- Pakistan can serve as trade hub for land-locked Asian states. BR, 10th Feb 2023.
- Banking pact with SBP also planned. BR, 12th Feb 2023.
- Poland-Pakistan trade volume reaches €723m. BR, 13th Feb 2023.
- FPCCI chief says exports to UK can get a new boost. BR, 14th Feb 2023.
- Trade resumes after key border crossing reopens. BR, 26th Feb 2023.
- Exchange rate and trade regime. Daily Dawn, Daily Dawn, 20 Feb 2023.
- Over 800 goods vehicles cross into Afghanistan as Torkham border reopens. Daily Dawn Fen 2023.
- Trade deficit narrows by 31.97 percent to \$19.6 billion in seven months. The Nation, 03rd Feb 2023.
- Pakistan, Italy to boost economic coop. The Nation, 04th Feb 2023.
- Trade industry to resist IMF pressure to enhance GST to 18 percent. The Nation, 06th Feb 2023.
- Pak-Germany trade witnesses over 70 percent surplus in 1st half. The Nation, 07th Feb 2023.
- Pak-China Trade, Investment Centre to enhance access of Pak products to Chinese markets. The Nation, 09th Feb 2023.
- Govt urged to benefit from global free trade bloc. The Nation, 13th Feb 2023.
- Poland-Pakistan trade volume reaches over €723m, says Polish Envoy. The Nation, 13th Feb 2023.
- Multan's businessmen evince keen interest in trade delegation to Ethiopia. The Nation, 14th Feb 2023.
- Resumption of TIFA ministerial meeting to boost Pak-US trade. The Nation, 24th Feb 2023.
- Pakistan, Uzbekistan ink \$1b trade deal. The Nation, 25th Feb 2023.
- Boost in Pakistani mangoes, dates' exports to US among topics discussed in Washington talks. The Nation, 27th Feb 2023.
- Italy, Pakistan trade volume grown exponentially to €2b last year. The Nation, 27th Feb 2023.
- Pakistan, Nepal must collaborate to boost trade ties envoy. The News, 08th Feb 2023.
- Kazakhstan keen to sign transit agreement with Pakistan, Thew NEsw, The Nes, 1990.
- What life is like in crisis-hit Pakistan as inflation soars. The News, 12th Feb 2023.

New Arrivals

Science and Engineering:

Title: Publisher: Call Number: Pages:	Beginning T-SQL : a step-by-step approach / Kathi Kellenberger and Lee Everest. Canada : APress, 2021. 004.165 K291B 2021 xxix, 706 pages : illustrations ; 25 cm.	Beginning T-SQL Age to Standard Market Market Bellet Bellet Bellet Bellet Bellet
Title: Publisher: Call Number: Pages:	A divine language : learning algebra, geometry, and calculus at the edge of old age / Alec Wilkinson. New York : Farrar, Straus and Giroux, 2022. 510.715 W686D 2022 287 pages ; 22 cm.	ADVINE LANGUAGE ADVINE LANGUAGE Anter Agentar, Gamart, and Alace WILKINSON
Title: Publisher: Call Number: Pages:	Galileo Galilei's "Two new sciences" for modern readers / Alessandro De Angelis. Switzerland : Springer, 2021. 531 A582G 2021 xxxi, 172 pages : illustrations, 23 cm.	Alexandro De Angelis Galileo Galilei's "Ywo New Sciences" Gr Modern Readers
Title: Publisher: Call Number: Pages:	The golden mole : and other living treasure / Katherine Rundell and illustrated by Talya Baldwin London : Faber, 2022 590 R941G 2022 vi, 196 pages : illustrations ; 22 cm.	THE GODDED AND OTHER LEVEN TREASURE INCLUDED INCLU
Title: Publisher: Call Number: Pages:	Scattered minds : the origins and healing of attention deficit disorder / Gabor Matele. London : Vermilion, an imprint of Penguin Books, 2019. 616.8589 M425S 2019 xix, 348 pages ; 20 cm.	NTHENATIONAL RESTRICTER GABOR MATE Scattered MUNDS The Origins and Results of ACTER THON THE ACTION DEFICTION AND ACTION TO ACTION AND ACTION DEFICTION AND ACTION AND ACTION AND ACTION DEFICTION AND ACTION AND ACTION AND ACTION DEFICTION AND ACTION AND ACTION AND ACTION AND ACTION ACTION AND ACTION AND ACTION AND ACTION AND ACTION AND ACTION ACTION AND ACTION ACTION ACTION ACTION ACTION ACTION ACTION ACTION ACTION ACTION ACTION ACTI
Title: Publisher: Call Number: Pages:	Couch fiction : a graphic tale of psychotherapy / Philippa Perry and illustrated by Flo Perry. London : Penguin, 2020. 616.8914 P462C 2020 141 pages : illustrations ; 23 cm.	The number of th

Philippa Perry Flo Perry

	Between : a guide for parents of eight to thirteen year olds /
Title:	Sarah Ockwell-Smith.
Publisher:	London : Piatkus, an imprint of Little Brown, 2021.
Call Number:	649.124 O169B 2021
Pages:	261 pages : illustrations ; 22 cm.

SARAH OCKWELLSMITH Athen of the centre steered exact Athen of the centre steered exact Athen of the centre steered exact A guide for parsents of eight to thirtseen year-olds

For an Ontology of Morals A Critique of Contemporary Ethical Theory

Philosophy and Psychology:

	For an ontology of morals: a critique of contemporary
Title:	ethical theory [by] Henry B. Veatch.
Publisher:	Evanston, Northwestern University Press, 1971.
Call Number:	KIC 170 V394F 1971
Pages:	xiii, 172 pages ; 24 cm.

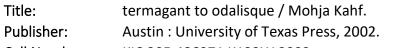
Religion:

Hinduism in middle India : Narasimha, the lord of the middle
/ Lavanya Vemsani.
New York : Bloomsbury Academic, 2023.
KIC 294.5054 V446H 2023
x, 239 pages : illustrations ; 23 cm.

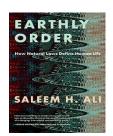
	A sociological study of the Tabligh Jama'at : working for
Title:	Allah / Jan A. Ali and Rizwan Sahib.
Publisher:	Switzerland : Palgrave Macmillan, 2022.
Call Number:	KIC 297.27 A398S 2022
Pages:	xv, 144 pages : illustrations, 2022.

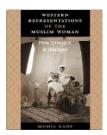
Social Sciences:

	Earthly order : how natural laws deﬕ ne human life /
Title:	Saleem H. Ali.
Publisher:	Karachi : Oxford University Press, 2023.
Call Number:	KIC 300 A398E 2023
Pages:	xii, 275 pages : illustrations ; 23 cm.
	Western representations of the Muslim woman : from



- Call Number: KIC 305.486971 K122W 2002
- Pages:207 pages : illustration ; 23 cm.







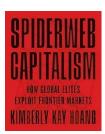


Title: Publisher: Call Number: Edition: Title: Publisher:	Red-handed : how American elites get rich helping China win / Peter Schweizer. New York : Harper, an imprint of HarperCollins Publishers, 2022. KIC 305.520973 S413R 2022 First edition. Islam & blackness / Jonathan A.C. Brown. London : Oneworld Academic, 2022.	
Call Number: Pages:	KIC 305.8 B877I 2022 xx, 396 pages, 4 unnumbered pages of plates : illustrations (some color) ; 24 cm.	ISLAM & BLACKNESS Jonathan A.C. Brown
Title: Publisher: Call Number: Pages:	The reluctant republic ethos & mythos of Pakistan / Nadeem Farooq Paracha. Lahore : Vanguard Books, 2022. KIC 305.8 P221R 2022 168 pages ; 22 cm.	ите сецистат теривис те сецистат теривис те са кар мутнов ор расказатала
Title: Publisher: Call Number: Pages:	When media goes to war : hegemonic discourse, public opinion, and the limits of dissent / by Anthony DiMaggio. New York, NY : Monthly Review Press, 2009. KIC 320.014 D582W 2009 384 pages : illustrations ; 23 cm.	WHEN MEDIA GOES TO WAR
Title: Publisher: Call Number: Pages:	Let the people rule : how direct democracy can meet the populist challenge / John G. Matsusaka. Princeton : Princeton University Press, 2020. KIC 321.8 M434L 2020 xii, 298 pages : illustrations, charts ; 23 cm.	JOHN O. MATSUSAKA LET THE PEOPLE RULLE IN MORE DATIONAL MARKET
Title: Publisher: Call Number: Pages:	Human rights for pragmatists : social power in modern times / Jack Snyder. New Jersy : Princeton University Press, 2022. KIC 323 S675H 2022 xiii, 310 pages : illustrations ; 24 cm.	Jack Snyder Human Rights for Pragmatists Social Power in Modern Times
Title: Publisher: Call Number: Pages:	Invasion : Russia's bloody war and Ukraine's fight for survival / Luke Harding. London : Guardian Faber, an imprint of Faber & Faber, 2022. KIC 327.0947 H263I 2022 328 pages : illustrations, map ; 23 cm.	INVASION RUSSAS WAR AME FGGHT FGGHT LIJKE HARDING

Title: Publisher: Call Number: Pages:	Hacker, influencer, faker, spy : intelligence agencies in the digital age / Robert Dover. London : Husrt and Company, 2022. KIC 327.1202854678 D743H 2022 x, 342 pages ; 22 cm.	HACKER, INFLUENCER, FAKER, SPY.
Title: Publisher: Call Number: Pages:	For the good of the world : is global agreement on global challenges possible? / A. C. Grayling. London : Oneworld, 2022. KIC 327.17 G783F 2022 vii, 232 pages ; 23 cm.	A. C. GRAYLING For the Good of the World
Title: Publisher: Call Number: Pages:	The truth about China : propaganda, patriotism and the search for answers / 2021. London : Crows Nest, 2021. KIC 327.51 B619T 2021 310 pages, 16 unnumbered pages of plates : colour illustrations, colour portraits ; 24 cm.	
Title: Publisher: Call Number: Pages:	Putin's wars : from Chechnya to Ukraine / Mark Galeotti. London : Osprey Publishing, 2022. KIC 355.46 G153P 2022 384 pages : illustrations, maps, photograpgs ; 24 cm.	MARK GALEOTTI WARS IN MENNE WARS IN MENNE
Title: Publisher: Call Number: Pages:	American caliph : the true story of a Muslim mystic, a Hollywood epic, and the 1977 siege of Washington, DC / Shahan Mufti. New York : Farrar, Straus and Giroux, 2022. KIC 362.88 M949A 2022 viii, 367 pages, 16 unnumbered pages of plates : illustrations; 24 cm.	AMERICAN • CALIPH • • CALIPH • • The Three Strey of a Market of the Strey of th
Title: Publisher: Call Number: Pages:	Exploring contemporary policing challenges : a global perspective / edited by Sanja Kutnjak Ivkovic, Jon Maskaly, Christopher M. Donner, Irena Cajner Mraovic, Dilip Das. New York, NY : Routledge, 2023. KIC 363.2 E967 2023 xxiv, 362 pages : illustrations ; 24 cm.	<text><section-header><section-header></section-header></section-header></text>
Title: Publisher: Call Number: Pages:	Women, police and security : reforming the afghan national police / Melissa Adele Jardine. Australia : Global Law Enforcement and Public Health Association, 2022. KIC 363.23 J373W 2022 137 pages : illustrations ; 22 cm.	MELISSA JARDINE

Title: Publisher: Call Number: Pages:	Benghazi! : a new history of the fiasco that pushed America and its world to the brink / Ethan Chorin. New York City : Hachette Books, 2022. KIC 363.325 C551B 2022 xxi, 402 pages : 24 cm.	Nor file Terror dar Berror dar De Nobel Statistica De Nobel Statis
Title: Publisher: Call Number: Pages:	Disaster theory : an interdisciplinary approach to concepts and causes / David Etkin. Amsterdam ; Boston : Butterworth-Heinemann, 2016. KIC 363.34 E849D 2016 xxvi, 359 pages : illustrations, maps ; 23 cm.	Disaster Theory Market and
Title: Publisher: Call Number: Pages:	Aspects of special needs education in Pakistan and other developing countries / Zahida Shakiel Lari. London : Saturday Night Press, 2006. KIC 371.9 L323A 2006 411 pages : illustrations ; 24 cm.	<section-header><text><text><text></text></text></text></section-header>
Title: Publisher: Call Number: Pages:	The samādhi of Maharaja Ranjit Singh in Lahore : a summation of Sikh architectural and decorative practices / Nadhra Shahbaz Khan. Berlin : EBVerlag, 2018. KIC 726.1460954552 K452S 2018 418 pages : illustrations, plates ; 25 cm.	
Economics:		
Title: Publisher: Call Number: Pages:	Capitalism and slavery / Eric Williams. London : Penguin, 2022. KIC 330.942 W721C 2022 xii, 283 pages ; 20 cm.	Equitalism and slavery
Title: Publisher: Call Number: Pages:	The little book of valuation : how to value a company, pick a stock, and profit / Aswath Damodaran. Hoboken : John Wiley & Sons, 2011. KIC 332.63221 D163L 2011 xvii, 230 pages : illustrations ; 19 cm.	The set when the set of the set o
Title: Publisher: Call Number: Pages:	Pakistan energy yearbook 2021 / Ministry of Energy (Petroleum Division), Hydrocarbon Development Institute of Pakistan. Islamabad : Ministry of Energy (Petroleum Division) ; Hydrocarbon Development Institute of Pakistan, 2022. KIC 333.791505 P152 2022 vii, 140 pages : illustrations ; 28 cm.	<image/>

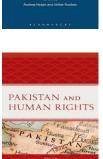
	Spiderweb capitalism : how global elites exploit frontier
Title:	markets / Kimberly Kay Hoang.
Publisher:	Princeton : Princeton University Press, 2022.
Call Number:	KIC 335.4 H678S 2022
Pages:	xiv, 267 pages : illustrations ; 24 cm.



Law:

_	Theorising the global legal order / edited by Andrew Halpin
Title:	& Volker Roeben.
Publisher:	Portland : Hart Publishing, 2009.
Call Number:	KIC 341.21 T396 2009
Pages:	viii, 278 pages ; 24 cm.

Title:	Pakistan and human rights / edited by Satvinder Juss.
Publisher:	Lanham : Lexington Books, 2022.
Call Number:	KIC 342.5491085 P152 2022
Pages:	vi, 302 pages : illustrations ; 20 cm.

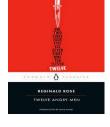


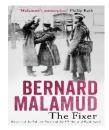
Theorising the Global Legal Order

Language and Literature:

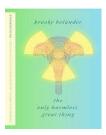
	Twelve angry men / Reginald Rose ; introduction by David
Title:	Mamet.
Publisher:	New York : Penguin Books, 2006.
Call Number:	KIC 812.54 R795T 2006
Pages:	xi, 73 pages ; 20 cm.

Title:	The fixer / Bernard Malamud.
Publisher:	London : Atlantic Books, 2014.
Call Number:	KIC 813.54 M236F 2014
Pages:	xii, 429 pages ; 20 cm.





Title:	The only harmless great thing / Brooke Bolander.
Publisher:	New York : Tom Doherty Associates, 2018.
Call Number:	KIC 813.6 B687 2018
Pages:	93 pages ; 21 cm.

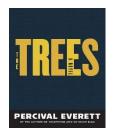


Title: Publisher: Call Number: Pages:

Title:

The trees : a novel / Percival Everett. London : Influx Press, 2022. KIC 813.6 E932T 2022 334 pages ; 20 cm.

Second coming / M. Athar Tahir. Publisher: Karachi : Lightstone, 2023. Call Number: KIC 823.9 T128S 2023 190 pages ; 21 cm. Pages:

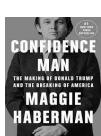




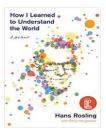
GORDON BROV

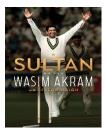
History and Geography:

Title: Publisher: Call Number: Pages:	Seven ways to change the world : how to fix the most pressing problems we face / Gordon Brown. London : Simon & Schuster, 2022. KIC 909.83 B877S 2022 530 pages : illustrations ;
Title: Publisher: Call Number: Pages:	Confidence man : the making of Donald Trump and the breaking of America / Maggie Haberman London : Mudlark, an imprint of HarperCollins, 2022. KIC 923.1073 H114C 2022 597 pages : illustrations ; 24 cm.
Title: Publisher: Call Number: Pages:	Bibi : my story / Benjamin Netanyahu. New York : Threshold, an imprint of Simon and Schuster, 2022. KIC 923.2033 N469B 2022 vii, 724 pages : illustrations, maps ; 24 cm.
Title: Publisher: Call Number: Pages:	How i learned to understand the world / Hans Rosling ; Fanny Halˆrgestam and translated by Anna Paterson. London : Sceptre, an imprint Hodder and Stoughton, 2021. KIC 926.61 R821H 2021 x, 244 pages : illustrations ; 22 cm.
Title: Publisher: Call Number: Pages:	Sultan : a memoir / Wasim Akram with Gideon Haigh. Karachi : Liberty Publishing, 2023. KIC 927.96358 W319S 2023 296 pages : illustrations ; 2023.





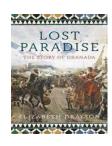


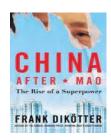


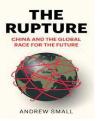
Title: Publisher: Call Number: Pages:	Red comet : the short life and blazing art of Sylvia Plath / Heather Clark. New York : Vintage, 2021. KIC 928.2 C592R 2021 xxix, 1118 pages, 16 leaves of plates (chiefly color) ; 25 cm.
Title:	Conversations with my father : forty years on, a daughter responds / Moneeza Hashmi.
Publisher:	Lahore : Sang-e-Meel Publications, 2022.
Call Number:	KIC 928.954 H348C 2022
	157 pages, 3 unnumbered pages of plates : illustrations,
Pages:	facsimiles, portraits, photographs ; 25 cm.
	Last Devedice , the stary of Granada / Elizabeth Drawan
Title:	Lost Paradise : the story of Granada / Elizabeth Drayson.
Publisher:	London : Head of Zeus, 2021.
Call Number:	KIC 946.82 D768L 2021
Pages:	xx, 437 pages : illustration ; 20 cm.











Title: Publisher: Call Number:	China after Mao : the rise of a superpower / Frank Dikötter. London : Bloomsbury, 2022. KIC 951 D575C 2022 xvi, 390 pages, 16 unnumbered pages of plates : illustrations;
Pages:	24 cm.
	The rupture : China and the global race for the future /

	The rupture : China and the global race for the futur
Title:	Andrew Small.
Publisher:	London : Hurst and Company, 2022.
Call Number:	KIC 951.061624144 S635R 2022
Pages:	vii, 285 pages ; 22 cm.

Journal Table of Content

Academy of Management JOURNAL

CONTENTS

LIBRARY

Volume 65, Number 6, December 2022

From the Editors—Publishing Relevant and Trustworthy Empirical Research in AMJ: The 22nd Editorial Term during the COVID-19 Pandemic Laszlo Tihanyi	
Advancing Reform: Embedded Activism to Develop Climate Solutions Todd Schifeling and Sara Soderstrom	1775
Different Roots, Different Fruits: Gender-Based Differences in Cultural Narratives about Perceived Discrimination Produce Divergent Psychological Consequences Leigh Plunkett Tost, Ashley E. Hardin, Jacob W. Roberson, and Francesca Gino	1804
Bridge Supervision: Correlates of a Boss on the Far Side of a Structural Hole Ronald S. Burt and Song Wang	1835
Creating and Sustaining Stakeholder Emotional Resonance with Organizational Identity in Social Mission-Driven Organizations Saouré Kouamé, Taieb Hafsi, David Oliver, and Ann Langley	1864
It's Not Always Sunny in Relationally Rich Jobs: The Influence of Negative Beneficiary Contact Jordan D. Nielsen and Amy E. Colbert	1894
Meaning, Mission, and Measurement: How Organizational Performance Measurement Shapes Perceptions of Work as Worthy Haley Beer, Pietro Micheli, and Marya Besharov	
When Helping Hurts Helpers: Anticipatory versus Reactive Helping, Helper's Relative Status, and Recipient Self-Threat Dana Harari, Michael R. Parke, and Jennifer Carson Marr	1954
The Downside of CFO Function-Based Language Incongruity Cyril Taewoong Um, Shiau-Ling Guo, Fabrice Lumineau, Wei Shi, and Ruixiang Song	1984
Fast or Slow: How Temporal Work Design Shapes Experienced Passage of Time and Job Performance Helen H. Zhao, Hong Deng, Rocky Peng Chen, Sharon K. Parker, and Wei Zhang	2014
The Social Aftershocks of Voice: An Investigation of Employees' Affective and Interpersonal Reactions after Speaking Up David T. Welsh, Ryan Outlaw, Daniel W. Newton, and Michael D. Baer	2034
The Grand Tour: The Role of Catalyzing Places for Industry Emergence Paolo Aversa, Emanuele Bianchi, Loris Gaio, and Alberto Nucciarelli	2058
Leader Perfectionism—Friend or Foe of Employee Creativity? Locus of Control as a Key Contingency Linna Xu, Zhi Liu, Ming Ji, Yuntao Dong, and Chia-Huei Wu	2092

Academy of Management PERSPECTIVES

CONTENTS

LIBRARY

Volume 36, Number 4, November 2022

ARTICLES

Why Are Private Equity Transactions Insured? A Neo-Institutional Theory Perspective Michael Adams and Zafeira Kastrinaki	
Declining Trust in Capitalism: Managerial, Research, and Public Policy Implications R. Michael Holmes Jr., David A. Waldman, Donald S. Siegel, and Justin A. Pepe	984
Corporate Diplomacy in the Age of U.SChina Rivalry Jing Li, Daniel Shapiro, Mike W. Peng, and Anastasia Ufimtseva	1007
Relational Competition: Interesting Idea, Questionable Construct Jingning Ao, Jesse-Burton Nicholson, Gal Blatman, Ravi Madhavan, and John E. Prescott	1033

EXCHANGE

Collectivist Perspectives on Crony Capitalism	
Dominic Chalmers	1049

ACRJ

.

1. 1



Volume 26 Issue 4

December 2022

Contents

Case and Perspective Summaries	iii
Editorial: What Makes A Great Teaching Note? Kishinchand Poornima Wasdani, Abhishek Vijaygopal, Derek Lehmberg	299
Time for a Change: Chinese Diaper-Maker DaddyBaby Faces COVID-19 (A) Ming-Jer Chen, Bingjing (Krystal) Yao, Mary Summers Whittle	309
Time for a Change: Chinese Diaper-Maker DaddyBaby Faces COVID-19 (B) <i>Ming-Jer Chen, Bingjing Yao, Mary Summers Whittle</i>	331
Shaikh Traders: Poultry Farming the Growth Mantra Kinjal Jethwani, Kumar Ramchandani	339
Reinventing Coffee: Pandemic Lessons from Sleepy Owl Coffee Pallavi Tyagi, Deepika Upadhyay, Shalini Mittal	353

	AWN MEDIA PUBLICATION ON IDEAS AND MARKETING APPROACHES
OA	URDRA
WOLLINS NOT	CONTENTS
	BEATING THE FIVE YEAR DEADLINE
	O Countdown to Islamic Banking 2027
M	Interview: Dr Ishrat Husain, Chairman of the IBA's Centre for Excellence in Islamic Finance
	10 SBP's Digital Account Opening Initiative
2B	The Challenges of Pakistan's Digital Banking Reality
	Blueprint for a New Agri Sector Financial Model
	14 Interview: Maya Ismail, Chairperson, HBL Sustainability Forum
	Making Loans Personal
	18 Too Much Vanilla and Not Enough Shine
	19 Can We Ditch the Tylenol Please?
	20 A Six for Financial Inclusion
	Embracing Comfort
	Maamta Forever
	MARING WAVES
	The Master Telecom Brand Builder That Lost Its Touch
	Campaign Watch
	IN CONVERSATION
	20 Interview: Yousaf Hussain, President & CEO, Faysal Bank Limited
	Interview: Muhammad Ghouse
	Uddin Khan, CEO, Alliancez
	What's Next for E-Commerce?
	PERSPECTIVES ON CREATIVE
	Eyes on the Wrong Prize
	35 The Power of the Open Question
	A Few of My Favourite Things
1	The Banker's Storyteller: Sheeza Ahmed, SVP, HabibMetro Bank, in profile
	You've Been WhatsApped!
	A Toolbox Full of Leads
	Interview: Naveed Asghar, CEO, GroupM
	BRANDED BUBBLES
	G Living My Dream
	Pakistan's Unassuming Media Star: Imran Aslam (1952-2022)
	CAMPAIGH REGISTER
	Campaigns for November- December 2022
	ABOVE-THE-LINE
	5 2 Your Horrorscope for 2023
	ENDGAME
	Of Cafés and Kaifis

pa-

-

CONTENTS

JANUARY/FEBRUARY 2023 VOL. 44, NO. 1



OUT THERE

- 28 A Fresh Eye on the Beginning of Time BY STEPHEN ORNES
- 30 First Plants Grown in Lunar Soil BY STEPHEN ORNES
- 32 Mars on a Hot Mic BY STEPHEN ORNES
- 33 InSight's Last Days Capture the Largest Marsquake Ever BY ERIK KLEMETTI

1 10

PLANET EARTH 34 Permafrost Nears

- **Tipping Point** BY STEPHEN ROBERT MILLER
- 36 Chat Bubbles BY KATE GOLEMBIEWSKI

- 37 Tongan Blast Felt Across the Globe BY ERIK KLEMETTI
- **38** When Climate **Adaptation Backfires** BY STEPHEN ROBERT MILLER
- **40** Renaming Nature BY KATE GOLEMBIEWSKI
- 41 Solving Life's Symmetry BY KATE GOLEMBIEWSKI

DISEASE CONTROL

- 42 Welcome to the Pandemicene BY KATE GOLEMBIEWSKI
- 44 The Mystery of Long COVID BY ELIZABETH SVOBODA

45 Monkeypox Gains Ground BY AVERY HURT

ORIGINS

- 46 Shackleton's Ship Found BY BRIDGET ALEX
- 47 Denisovan Tooth in the Tropics BY BRIDGET ALEX
- 48 Brought to Light BY BRIDGET ALEX
- 48 Two New Tyrannosaurus Species? BY RILEY BLACK

CONTENTS



p. 45

- 49 Season of Destruction BY RILEY BLACK
- 50 Pig Heart Transplant Offers Uncertain Hope BY KENNETH MILLER

D. 74

LIBRARY

- 51 Taking Microplastics to Heart and Lungs BY KENNETH MILLER
- 52 Double-Play Against Cancer BY KENNETH MILLER
- 53 The Microbe Behind Multiple Sclerosis? BY KENNETH MILLER
- 54 Retrons Give Gene Editing a Boost BY NATHANIEL SCHARPING
- 54 U.S. Ruling Upends Reproductive Health Care BY ELIZABETH SVOBODA

56 The Hunt for a Cause BY ANNA FUNK

DEPARTMENTS

- EDITOR'S NOTE 6 Mind the Gap
- Unpacking the science of 2022.
- 8 INBOX Mental health, AI and the price of wind energ
- 9 HOT SCIENCE A Q&A with Michio Kaku, a goose's love, a new way of gathering animal DNA, and more!

VITAL SIGNS

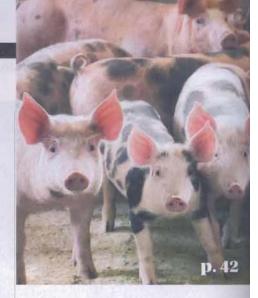
22 Doubled Over

A mysterious pain in her gut had this 4-year-old screaming in agony for hours. JULIA MICHIE BRUCKNER

#SCIENCEIRL

74 Dinosaur Trail

Exposed prints brought droves of visitors this summer to Dinosaur Valley State Park.



58 Gender-Affirming Care Tied to Improved Mental Health BY HELEN SANTORO

TECH

60 Fusion's Future BY AVERY HURT

61 Large Language Models: A Step Closer to General AI BY AVERY HURT

POLICY & CULTURE

62 U.S. Passes Historic Climate Act BY TOM YULSMAN

- 64 U.K. Recognizes Lobster Sentience BY KATE GOLEMBIEWSKI
- 64 Panama Protects Nature's "Right to Exist" BY KATE GOLEMBIEWSKI
- 66 A New Solution to an "Impossible" Math Problem BY STEPHEN ORNES

YEAR IN PHOTOS

68 See the striking images that highlight a year of science.





Volume 102, Number 1

Essavs

4.



Putin's Last Stand	8
The Promise and Peril of Russian Defeat	
LIANA FIX AND MICHAEL KIMMAGE	
The Global Zeitenwende	22
How to Avoid a New Cold War in a Multipolar Era	
OLAF SCHOLZ	
A Free World, If You Can Keep It	39
Ukraine and American Interests	
ROBERT KAGAN	
Open Secrets	54
Ukraine and the Next Intelligence Revolution	
AMY ZEGART	
The Autocrat in Your iPhone	72
How Mercenary Spyware Threatens Democracy	
RONALD J. DEIBERT	

Cover illustration by Chris Malbon

Essays

How to Stop Chinese Coercion The Case for Collective Resilience VICTOR CHA	89
The Taiwan Long Game Why the Best Solution Is No Solution JUDE BLANCHETTE AND RYAN HASS	102
The Kingdom and the Power How to Salvage the U.SSaudi Relationship F. GREGORY GAUSE III	115
Inevitable Outbreaks How to Stop an Age of Spillovers From Becoming an Age of Pandemics LARRY BRILLIANT, MARK SMOLINSKI, LISA DANZIG, AND W. IAN LIPKIN	126
The New Industrial Age America Should Once Again Become a Manufacturing Superpower RO KHANNA	141

LIBRARY



LIBRARY Reviews and Responses The Gospel of Deglobalization 155 What's the Cost of a Fractured World Economy? RAGHURAM G. RAJAN Profiles in Power 163 The World According to Kissinger JESSICA T. MATHEWS The Ghosts of Kennan 170 Lessons From the Start of a Cold War FREDRIK LOGEVALL To Kill a Democracy 180 What a Mysterious Murder Says About Modern Indonesia KRITHIKA VARAGUR Recent Books 187 The Archive 212

"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 expressed in any article, signed or unsigned, which appear in its pages. What it does accept is the responsibility for giving them a chance to appear there."

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

the second



Arguments

- 5 Prevent China From Killing Human Rights at the U.N. KELLEY E. CURRIE
- 7 Biden Is All-In on Taking Out China JON BATEMAN
- 10 Pakistan's Military Is Here to Stay HUSAIN HAQQANI
- 12 Why Japan Should Join AUKUS MICHAEL AUSLIN
- 14 Misogyny Imperiled Iran's Regime FARZANEH MILANI
- 16 Egypt Doubled Down on Fossil Fuels by Stifling Dissent TIRANA HASSAN AND RICHARD PEARSHOUSE
- 17 Ukraine's Military Medicine Is a Critical Advantage TANISHA M. FAZAL
- **19** The European Project Is at the Mercy of the Weather ADAM TOOZE
- 21 Can Putin's Center Hold? TATIANA STANOVAYA
- 24 Stop Banning Oil From Venezuela FRANCISCO RODRÍGUEZ
- 26 Latin America's Pink Tide Is a Mirage SIMEON TEGEL

Essay

28 The Cult of Modi

How India's prime minister dismantled the world's largest democratic experiment.

RAMACHANDRA GUHA

Cover Story

36 New Rules for War

Twelve experts on what the world needs to learn from Russia's invasion of Ukraine.

ANDERS FOGH RASMUSSEN Page 39

MARIA SHAGINA Page 40

ROSE GOTTEMOELLER Page 41

DAVID PETRAEUS AND VANCE SERCHUK Page 42

LEE HSI-MIN Page 44

ELISABETH BRAW Page 46

TAI MING CHEUNG Page 47

CRAIG SINGLETON Page 48

CHRIS KREBS Page 50

MAURO GILLI Page 51

GRAHAM ALLISON Page 52

ANNE-MARIE SLAUGHTER Page 53

Review

- 73 The Dirty World of Green Cars The path to electric vehicles is a costly one. BOB DAVIS
- 79 China's Decade of Buried Hopes The 1980s remain a forbidden history. JULIA LOVELL
- 84 Coming to America The case for immigration optimism. REIHAN SALAM

97 Quiz

On the cover: A Panzerhaubitze 2000 tank howitzer fires during a mission in Ukraine's Donetsk region in July 2022. Photo by JULIA KOCHETOVA

FORTUNE FEBRUARY/MARCH 202

VOLUME 187 + NUMBER 1

LIBRARY

Features February/March 2023

26 ChatGPT Creates an A.I. Frenzy

Microsoft is poised to invest billions in OpenAI and its groundbreaking bot. Why the future it's building is awesome—and terrifying. BY JEREMY KAHN WITH MICHAL LEV-RAM & JESSICA MATHEWS

42

Wall Street's Oil Stain

Banks' and investment firms' heavy dependence on fossil fuel projects shows how hard it will be for them to keep their "net-zero" promises. BY JEFFREY ROTHFEDER & CHRISTOPHER MAAG

36

It's Time to Talk About Male Mediocrity at Work

Some men use "strategic incompetence" to avoid responsibility. How one writer learned to stop doing that. BY ROSS MCCAMMON

49

The World's Most Admired Companies

Despite tough times for tech giants, the 25th edition of *Fortune*'s annual ranking of corporate reputation suggests their peers respect them as much as ever.

BY MATT HEIMER & SCOTT DECARLO

A "carbon bomb" site: Oil-sands mining in Alberta, Canada, leaves a massive carbon footprint.



COVER PHOTOGRAPH BY IAN C. BATES— THE NEW YORK TIMES/ REDUX

2 FORTUNE FEBRUARY/MARCH 2023

LIBRARY

Departments



The Conversation

GINA DROSOS, CEO OF SIGNET JEWELERS The retailer's first female CEO reversed its long slump by making smart tech bets and fixing a badly broken management culture. BY PHIL WAHBA

Foreword

4

8 The A.I. Meteor Is Coming, and We Are Not Prepared BY ALYSON SHONTELL

The Brief

16

19

- 9 Get Ready for the Mindset Shift of "Retro Capitalism" BY NICK LICHTENBERG
- 13 Steady Over Sexy Could Save Your Portfolio BY LARRY LIGHT
 - The Great Tech-Job Reshuffle: The Newly Unemployed Are a Hot Commodity Elsewhere BY MICHAL LEV-RAM
 - The True Cost of Success: Why Is There Still a Stigma Around Women Executives Hiring Help? BY MEGAN LEONHARDT

21 Though a Crucial Tool in the Ukraine War, Telegram Remains an Iffy Business BY VIVIENNE WALT

Passions

54 Feed the Pigs, Then Hit the Spa at These Luxe Farm Resorts BY ADAM ERACE

The Cartographer

57 Economic Exodus in the Americas BY NICOLAS RAPP & MATT HEIMER



CONTEN

IMPACT REPORT Get a weekly look at how ESG news and trends are shaping the roles and responsibilities of today's executives.

100 BEST COMPANIES TO WORK FOR From our ongoing collaboration with Great Place to Work, it's the ultimate list for HR bragging rights (online April 4).

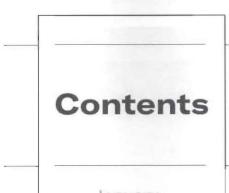
THE TRUST FACTOR

Check out our weekly guide to strengthening trust throughout your business the new KPI executives need to succeed.

For all this and more, head to fortune.com.

Fortune Asia (ISSN 0738-5580) is published bimonthly by Fortune Media IP Limited. Fortune Asia may also publish occasional extra issues. Customer Service and Subscriptions: For 24/7 service, please use our website: www.subscribenow.com.au/fortune/asia/SOLO. You may also contact the Customer Services Center: (61) 2 8880 0370, or email fortune@subscribenow.com.au or write to Fortune Media IP Limited, Unit I, J&K, 17/F, Finance and IT Center of Macau, Avenida Doutor Mario Soares No. 320, Macau. Subscribers: If the postal authorities alert us that your magazine is undeliverable, we have no further obligation unless we receive a corrected address within two years. @2023 Fortune Media IP Limited. FORTUNE is a trademark of Fortune Media IP Limited, registered in the U.S. and other countries. Fortune Asia is printed in Singapore. Singapore MCI(P)059/09/2022. Malaysia KKDN permit no. PPS1915/06/2020(026015).





January-February 2023

LIBRARY

"Why do companies obsess over cost per hire but spend so little time trying to see if they make good hires?"

"HOW FINANCIAL ACCOUNTING SCREWS UP HR," PAGE 38



What Companies Get Wrong About Talent Management

38

How Financial Accounting Screws Up HR It distorts hiring, training, and benefits practices. Peter Cappelli

45

Rethink Your Employee Value Proposition

Offer your people more than just flexibility. Mark Mortensen and Amy C. Edmondson

50

Archive

Trunk

Cover:

Designing Jobs Right

Make them challenging but don't overdo it. Roger L. Martin

COVER PHOTOGRAPH

Levi Brown



Illustration by KEITH NEGLEY

LIBRARY "

January– February 2023

55 Features

The Overlooked Key to a Successful Scale-Up

It's mastering the "extrapolation" stage, when start-ups begin to focus on profitability, not just growth. Jeffrey F. Rayport, Davide Sola, and Martin Kupp

66 PRICING STRATEGY

Expand Your Pricing Paradigm Look to other industries

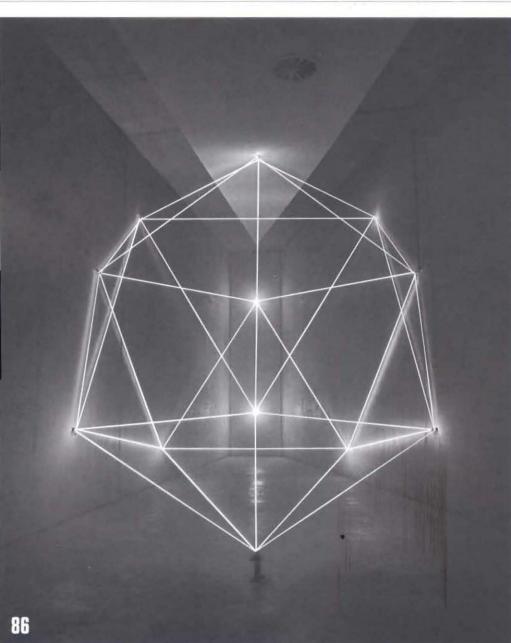
for inspiration. Rafi Mohammed

76 HEALTH & WELLNESS Employers Can Do More to Advance Health Equity

They can optimize benefits, address social issues, and expand access to care. Shantanu Nundy, MD; Lisa A. Cooper, MD; and Ellen Kelsay

Be organizational Decision-making The Permissionless Corporation

Technology is empowering employees to make their own decisions. Organizational structures need to catch up. *Rita McGrath and Ram Charan*



BUSINESS & SOCIETY Managing in the Age of Outrage

As societies become angrier, managers must condition themselves to respond sensitively. Karthik Ramanna

108 LEADERSHIP STYLES The Power of Options

Always give yourself four ways to win. David Noble and Carol Kauffman

Stop Tinkering with Al

It's time to go all in. Thomas H. Davenport and Nitin Mittal

How Frank Gehry Delivers On Time and On Budget

Lessons from the master architect in managing big projects Bent Flyvbjerg and Dan Gardner

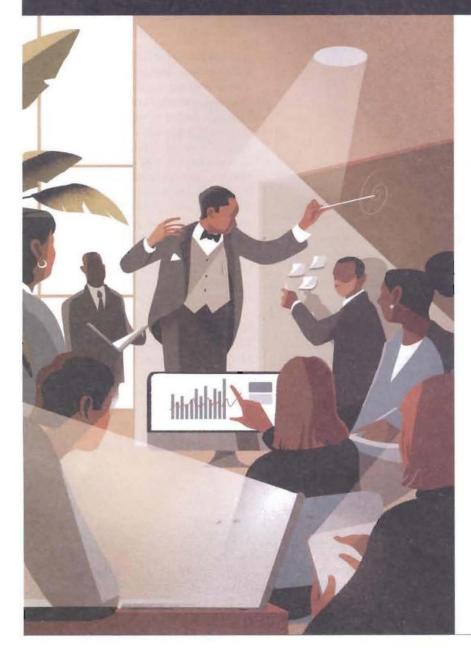
Harvard Business Review January–February 2023

8

Photograph by JAMES NIZAM

Contents

WINTER 2023 | VOLUME 64, NO. 2



22 ELIBRARY SPECIAL REPORT: TEAMWORK REINVENTED

How to Orchestrate Successful Teams in the New World of Work

24 Turn Your Teams Inside Out

Externally focused teams can drive innovation, performance, and distributed leadership — but adopting them requires a shift in mindset. By Deborah Ancona and Henrik Bresman

30 What Employees Want Most in Uncertain Times

When threats loom, managers must go beyond the tried-and-true techniques for supporting employees to address divergent concerns and build trust. By Kristine W. Powers and Jessica B.B. Diaz

35 Managing the New Tensions of Hybrid Work

Leaders are meeting employee demands for more flexible work arrangements amid concerns over the impact on organizational culture and innovation capability. By Jonathan Trevor and Matthias Holweg



FEATURES

40 Make Leader Character Your Competitive Edge

Character is about a lot more than ethics — and fostering a culture where it is valued equally alongside competence can result in better decisions and better outcomes. By Mary Crossan, William (Bill) Furlong, and Robert D. Austin

48 How to Build Good AI Solutions When Data Is Scarce

Data-efficient AI techniques are emerging — and that means you don't always need large volumes of labeled data to train AI systems based on neural networks. By Rama Ramakrishnan

54 Improve Your Diversity Measurement for Better Outcomes

Managers need better data collection practices if they are to gain a clearer picture of DEI and design more effective interventions. By Derek R. Avery, Enrica N. Ruggs, Larissa R. Garcia, Horatio D. Traylor, and Noelle London

60 Get Ready for the Next Supply Disruption

Companies must build the capabilities to anticipate, detect, diagnose, activate resources for, protect against, and track known and unknown-but-knowable risks. By M. Johnny Rungtusanatham and David A. Johnston

66 When Algorithms Rule, Values Can Wither

Building responsible AI systems starts with recognizing that technology solutions implicitly prioritize efficiency. By Dirk Lindebaum, Vern Glaser, Christine Moser, and Mehreen Ashraf

70 Now You See Me, Now I'm Gone

As undervalued performers become more visible, they also gain more options to leave their employers. By Boris Groysberg, Derek Haas, and Eric Lin

76 A New Conflict-Resolution Model to Advance DEI

Organizations that manage tensions constructively can create and sustain change. By Peter T. Coleman, Allegra Chen-Carrel, and Bodi M. Regan

COLUMN

88 How Do I Escape the Specter of My Predecessor?

Coaching for the Future-Forward Leader. By Sanyin Siang

FRONTIERS

7 Every Company Needs a Political Strategy Today

Five principles will help business leaders take decisive action when fast-changing laws and regulations conflict with stakeholder values. By Blair Levin and Larry Downes

10 The Limits of Neuroscience in Business

Before investing in products or services that claim to provide business insights based on brain research, managers should understand several key issues with neuroscientific solutions. By Jared Cooney Horvath

13 Why Businesses Need to Embrace the Bioeconomy

Developing and using planet-friendly materials can yield new, more sustainable business models — and contribute to building a robust infrastructure for renewable biological resources. By Donna Marshall, Aideen O'Dochartaigh, Andrea Prothero, Orlagh Reynolds, and Enrico Secchi

16 Use Your Ambivalence to Make More Ethical Decisions

Being conscious of ambivalence helps decision makers suspend initial judgments, deflect biases, and integrate conflicting material. By Morela Hernandez, Cristiano Guarana, and Catherine Owsik

19 Rethinking How We Assess Companies on Social and Environmental Impact

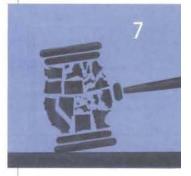
A new framework offers a broader, more effective approach to assessing both the internal and external aspects of a company's social and sustainability performance. By Nicholas Andreou and Marya Besharov

LIBRARY

IN EVERY ISSUE

1 From the Editor

84 Executive Briefings



EDITOR'S NOTE: Some articles in this issue were originally published online. They have been adapted for print.



1 1-

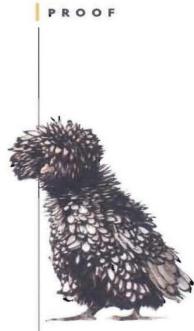




CONTENTS

On the Cover

Origami folds let the inner disk of NASA's starshade prototype wrap into a cylinder for launch, then unfurl to block starlight reaching a space telescope. CRAIG CUTLER





From Coop to Catwalk In the Dutch countryside, a portrait photographer turns his lens to poultry and finds the animals to be "walking pieces of art." PHOTOGRAPHS BY ALEX TEN NAPEL

EXPLORE

15 15

These Boots Were Made ... of What? Investigating whether an advertised item is made from protected wildlife isn't as straightforward as it sounds. BY DINA FINE MARON

DECODER

The Dawn of Jaws New fossil discoveries in China provide clues to a key moment in vertebrate evolution. BY MICHAEL GRESHKO



ALSO Rock Climbing in Rio Ocean Floor Exploration



32

CAPTURED

Moon Views in Rainbow Hues Orange, bronze, tan, even purple–Earth's atmosphere colors how we see the moon. BY LIZ KRUESI

CLOSER LOOK

Monsters of Spring Fearsome creatures scare away winter in a Slovenian tradition. BY NOAH CHARNEY PHOTOGRAPHS BY CIRIL JAZBEK

ALSO Freaky Fish Face-Off Longest-Tongued Moth

LIBRARY



FEATURES

The Future Is Folded Origami is delicate and decorative, yes, but powerful and practical? As art is adapted to serve science, the intricate patterns of origami are being harnessed to create items such as robotic arms, highly effective face masks, and solar arrays to unfurl in space. BY MAYA WEI-HAAS PHOTOGRAPHS BY CRAIG CUTLER P. 34

A New Old Age Having one of the world's oldest populations means having to change—everything. BY SARAH LUBMAN PHOTOGRAPHS BY NORIKO HAYASHI......P. 58

What's Not to Love? Sea otters seem to be doing swimmingly, but it's complicated. BY CYNTHIA GORNEY PHOTOGRAPHS BY RALPH PACE AND KILIII YÜYAN......P. 84

Made From Mud

In West Africa, a traditional building material is back, helping make modern edifices cool. BY PETER SCHWARTZSTEIN PHOTOGRAPHS BY MOISES SAMAN.......P. 108

ABOVE: Tsukimi Ayano, 72, crafts a new doll to commemorate the residents of her hometown of Nagoro, Japan. The shrinking hamlet has hundreds of dolls but just 25 inhabitants.



Pakistan's robust population growth and the accelerating buying behavior of the consumers, transformed Pakistan Super League in a short period of time. As a short-format high-value cricket league, it features participation of major international cricketers who not only visit Pakistan to join one of the franchised teams in the competitive tournament but act as an ambassador of their country. Infused with Pakistani money, motifs, and meanings, a new spectacle of consumption is on offer.

Stock Market Index	02	Research Corner	33
Pakistan In Focus	04	Technology News	36
Cover Story: PAKISTAN SUPER LEAGUE & FRANCHISING	05	Asia News	37
KSE-Market Review	21	Gulf News	39
Fact Sheet	22	Announcement	40
KSE-100 Indicators	24	World Commodities	46
Global Financial Market	26	Ports & Shipping	47
Global Stock Exchange	28	Leadership & Management	48

Pakistan & Gulf Economist, February 13 - 26, 2023







PHYSICS TODAY

January 2023 | volume 76 number 1

FEATURES

LIBRARY

28 Ethics in physics: The need for culture change Frances A. Houle, Kate P. Kirby, and Michael P. Marder

A new American Physical Society survey shows that although ethics education is more prevalent than it was nearly two decades ago, unethical research practices and harassment are still significant problems in the physics community.

36 The topology of data

Mason A. Porter, Michelle Feng, and Eleni Katifori Topological data analysis, which allows systematic investigations of the "shape" of data, has yielded fascinating insights into many physical systems.

44 Nazis, émigrés, and abstract mathematics Rvan Dahn

Today, Jordan algebras are a sprawling mathematical subfield, but the strange story of their discovery amid Adolf Hitler's seizure of power is not widely known.

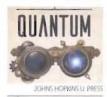


ON THE COVER: Although usually permanently frozen, carbon-rich peatlands across this 3-km-wide stretch of Arctic tundra burned on 18 June 2020. The true-color image is overlaid by an IR filter that shows the fire hot spots. Arctic fires were exceptionally widespread during the 2019, 2020, and 2021 fire seasons compared with those of the past 20–40 years. See **page 17** to learn more about the complex set of interactions that affect high-latitude wildfires. (Satellite photo created by Adrià Descals; imagery acquired by the European Space Agency.)



www.physicstoday.org

Best of 2022 Explore PHYSICS TODAY'S most viewed pieces from last year, including severalavailable only online. Topics include helium shortages, the quantum measurement problem, the 10th anniversary of the discovery of the Higgs boson, and strategies to advance equity, diversity, and inclusion. physicstoday.org/Jan2023a



The year in books

Physics Topay's books editor, Ryan Dahn, looks back at 2022 and compiles a list of recommended books for fans of physics and its history. Selections include an entertaining introduction to quantum thermodynamics and a biography of the late materials scientist Mildred Dresselhaus. *physicstoday.org/Jan2023b*



Ignition attained

A fusion reaction at the National Ignition Facility yielded more energy than the laser energy required to spark it, Department of Energy officials announced last month. Physics TODAY's David Kramer details the long-awaited result and considers the implications for weapons research and energy applications. physicstoday.org/Jan2023c PHYSICS TODAY (ISSN 0031-9228, coden PHTOAD) volume 76, number 1. Published monthly by the American Institute of Physics, 1305 Walt Whitman Rd, Suite 110, Melville, NY 11747-4300. Periodicals postage paid at Huntington Station, NY, and at additional mailing offices. POSTMASTER: Send address changes to Physics TooAY, American Institute of Physics, 1305 Walt Whitman Rd, Suite 110, Melville, NY 11747-4300. Views expressed in Physics TooAY and on its website are those of the authors and

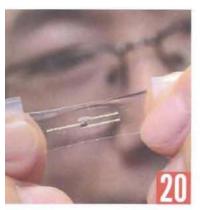
not necessarily those of AIP or any of its member societies.



Copyright © 2023, American Institute of Physics. Single copies of individual articles may be made for private use or research. Authorization is given to copy articles beyond the free use permitted under US Copyright Law, provided that the copying fee of \$30.00 per copy per article is paid to the Copyright Clearance Center, 222 Rosewood Dr, Danvers, MA 01923. For articles published before 1978, the copying fee is \$0.25 per article. Authorization does not extend to systematic or multiple reproduction or to republication in any form. In all such cases, specific written permission from AIP must be obtained. Send requests for permission to AIP Office of Rights and Permissions, 1305 Walt Whitman Rd, Suite 110, Melville, NY 11747-4300; phone +1 516 576-2268; email rights@aip.org.

PHYSICS TODAY LIBRAI www.physicstoday.org







FPARTMENTS

10 Readers' forum

Commentary: How to talk about climate change with politicians - Paul Higgins • Letters

14 Search & discovery

The early universe in a guantum gas • Climate change is redefining Arctic wildfires

20 Issues & events

Scientists take steps in the lab toward climate sustainability

A computing hardware approach aspires to emulate the brain

51 Books

A stormy life in atmospheric science - Roger Turner

- A survey of women in astronomy Joanna Behrman
- New books & media

56 New products

Focus on lasers, imaging, microscopy, and nanoscience

59 Obituaries

Maarten Schmidt • Karl von Meyenn

62 Quick study

Enceladus erupts – Michael Manga and Maxwell Rudolph

64 Back scatter

Zinc snowflakes

The American Institute of Physics is a federation of scientific societies in the physical sciences, representing scientists, engineers, educators, and students. AIP offers authoritative information, services, and expertise in physics education and student programs, science communication, government relations, career services, statistical research in physics employment and education, industrial outreach, and history of the physical sciences. AIP publishes Physics Today and is also home to the Society of Physics Students and to the Niels Bohr Library and Archives. AIP owns AIP Publishing, a scholarly publisher in the physical and related sciences.

Board of Directors: David J. Helfand (Chair), Michael H. Moloney (CEO), Judy R. Dubno (Corporate Secretary), Susan K. Avery (Treasurer), Jonathan Bagger, Susan Burkett, Bruce H. Curran, Eric M. Furst, Jack G. Hehn, Mary James, Stella Kafka, Tyrone M. Porter, Efrain E. Rodriguez, Elizabeth Rogan, Nathan Sanders, Charles E. Woodward.

Officers: Michael H. Moloney (CEO), Gigi Swartz (CFAO).

SUBSCRIPTION QUESTIONS? +1 800 344-6902 +1 516 576-2270 ptsubs@aip.org

6 PHYSICS TODAY I JANUARY 2023

Editor-in-chief Richard J. Fitzgerald rjf@aip.org

Art and production

Donna Padian, art director Freddie A. Pagani, graphic designer Cynthia B. Cummings, photographer Nathan Cromer

Editors

Ryan Dahn rdahn@aip.org Toni Feder tf@aip.org Heather M. Hill hhill@aip.org Abby Hunt ahunt@aip.org David Kramer dk@aip.org Alex Lopatka alopatka@aip.org Johanna L. Miller jlm@aip.org Gayle G. Parraway ggp@aip.org R. Mark Wilson rmw@aip.org

Online

Paul K. Guinnessy, director pkg@aip.org Andrew Grant, editor agrant@aip.org Angela Dombroski atd@aip.org Greg Stasiewicz gls@aip.org

Assistant editor Cynthia B. Cummings

Editorial assistant Tonya Gary

Contributing editor Andreas Mandelis

Sales and marketing Christina Unger Ramos, director cunger@aip.org Unique Carter Krystal Amaya Skye Haynes

Address American Cepter for Physics **One Physics Ellipse** College Park, MD 20740-3842 +1 301 209-3100 pteditors@aip.org

F PhysicsToday 😏 @physicstoday

Member societies ACA: The Structural Science Society Acoustical Society of America American Association of Physicists in Medicine American Association of Physics Teachers American Astronomical Society American Meteorological Society American Physical Society AVS: Science & Technology of Materials, Interfaces,

and Processing

Optica (formerly The Optical Society) The Society of Rheology

Other member organizations

Sigma Pi Sigma Physics and Astronomy Honor Society

Society of Physics Students



24 ENTERTAINMENT

Jane Fonda

The iconic actress and activist is a great believer in the role of luck in life success. JAMES MOTTRAM

32

How To Beat Diabetes

The latest science treatments and medications helping to prevent and control the condition. SYDNEY LONEY

Features IIBRARY

40

Adrift

With no choice but to abandon his sinking yacht, Don Cavers was at the mercy of the ocean currents in a tiny life raft. GARY STEPHEN ROSS



ON THE COVER: JANE FONDA - PAGE 24

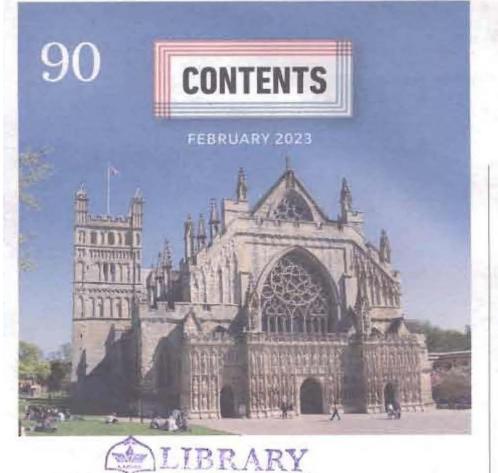
54 FIRST PERSON Stalked By An Airtag

An electronic device designed to keep track of lost things is being used to monitor and stalk people. MAGGIE KIM

64 PHOTO FEATURE

Photo Bombed Perfect Kodak moments until a cute or curious animal pops up on the scene. DORIS KOCHANEK

rdasia.com 1



70

The Perfect Salon? A Barber Shop

Barbers don't need to be a male preserve, and the conversation is just as good. PATRICIA PEARSON

74

Take Up A Healthy Hobby

Energetic and restful leisure activities that'll boost your mood, and improve your physical wellbeing. SUSANNAH HICKLING

78

INSPIRATION Extreme Medicine

Meet the medics who work in the world's harshest conditions and step in when there is a crisis. PARISA HASHEMPOUR

86

The Moon Has Risen A constant companion as it orbits the Earth, how much do you know about the moon? Hint: It's not made of cheese. CAROLINE FRIEDMANN

90 TRAVEL If These Cliffs Could Talk

Fossils, smugglers and cheese-makers all have their stories to share about Devon's southeast coast. BEN LERWELL FROM NATIONAL GEOGRAPHIC TRAVELLER



98 BONUS READ Portugal's Schindler The diplomat who followed his conscience to save thousands of people

from the Nazi regime. CHANAN TIGAY FROM SMITHSONIAN MAGAZINE

Departments

73

THE DIGEST

- 16 Pets Corner
- 18 Health
- 22 News From The World Of Medicine
- 115 RD Recommends

REGULARS

- 4 Editor's Note
- 6 Letters
- 10 My Story
- 14 Smart Animals
- 50 Look Twice
- 73 Quotable Quotes

HUMOUR

PHOTOS: (LOCKWOOD, DOG, BARBIE) GETTY IMAGES

- 48 Life's Like That
- 62 Laughter
- 76 All In A Day's Work

THE GENIUS SECTION

118 Empathetic Pain
122 Puzzles
125 Trivia
126 Puzzle Answers
127 Word Power

62



HAVE YOU VISITED THE READER'S DIGEST FACEBOOK PAGE LATELY?

LIBRARY

Constantly updated, our Facebook feed offers stories, videos, advice, humour, quotable quotes, cartoons, quirky photographs and more.

FOLLOW US @ReadersDigestAsia

The Academy of Management Review

CONTENTS DIBRARY

Volume 48, Number 1, January 2023

FROM THE EDITORS

Theorizing From Emerging Markets: Challenges, Opportunities, and Publishing Advice Shad Morris, Ruth V. Aguilera, Greg Fisher, and Sherry M. B. Thatcher	1
ARTICLES	
Continue the Story or Turn the Page? Coworker Reactions to Inheriting a Legacy Jason A. Colquitt, Tyler B. Sabey, Michael D. Pfarrer, Jessica B. Rodell, and Edwyna T. Hill	11
Organizational Underdog Narratives: The Cultivation and Consequences of a Collective Underdog Identity Logan M. Steele and Jeffrey B. Lovelace	32
A Typological Theory of Domestic Employees' Acculturation Stress and Adaptation in the Context of Globalization Victor P. Lau and Margaret A. Shaffer	57
Designing Online Platforms for Customized Goods and Services: A Market Frictions-Based Perspective Leon Yang Chu and Brian Wu	. 78
Grounding Business Models: Cognition, Boundary Objects, and Business Model Change Dean A. Shepherd, Stella K. Seyb, and Gerard George	100
Uncertain Learning Curves: Implications for First-Mover Advantage and Knowledge Spillovers Michael J. Leiblein, John S. Chen. and Hart E. Posen	123
REVIEW ESSAY	
Antigone: On Phronesis and How to Make Good and Timely Leadership Decisions Alessia Contu	149
DIALOGUE	
Cultural Contingencies of Resources: (Re)conceptualizing Domestic Employees in the Context of Globalization Yih-Teen Lee and Nana Yaa A. Gyamfi	165
Cultural Purity as in Utopias, (De)globalization as Externalities, and Typologies as Parsimonious Models of Domestic Employees' Acculturation Stress and Adaptation Responses	
Victor P. Lau and Margaret A. Shaffer	168

Contents

The Economist February 25th 2023

5



On the cover

The future of Ukraine: what victory looks like, and what it requires: leader, page 9. Ukraine's fate will determine the West's authority in the world, page 16. The struggle to forge a new arsenal of democracy, page 20. The invasion may have stalled, but Putin's war on dissent marches on, page 23. The war has strengthened Ukraine's institutions and civil society, page 25. Russia's second offensive is a damp squib, page 53. Ukraine's 8m refugees, one year on, page 62. A year after he promised a transformation, Olaf Scholz has done too little: leader, page 10, and analysis, page 52. Chinese support for Russia risks inflaming the Sino-American rivalry, page 33. South Africa is drifting into the Sino-Russian orbit, page 48. Bakhmut, the symbolic city: Obituary, page 90

A new era of Chinese lending China has not resolved its past mistakes. But it is learning from them: leader, page 12, and analysis, page 74

Biden's border plan The administration's new border policies irritate the extremes. Good. Page n. Mexico's co-operation is essential, page 43

→ The digital element of your subscription means that you can search our archive, read all of our daily journalism and listen to audio versions of our stories. Visit economist.com

The world this week

7 A summary of political and business news

Leaders

- 9 A year of war The future of Ukraine
- 10 German security Not enough Wende
- 11 Immigration Making America greater
- 11 South African diplomacy Irrational interest
- 12 Debt in poor countries Tighter belt, shorter road

Letters

14 On South Korea and Ukraine, ChatGPT, corruption in Britain, Moldova, Bolivia, etymologies

Briefing

- 16 Ukraine: A year of war Geopolitics in flux
- 20 The defence industry Arsenals of democracy
- 23 Militarising Russia Home front
- 25 Ukraine's identity Battle-tested
- 26 Measuring the damage Hail of destruction

ELIBRAR

Schumpeter It's time

YouTube, page 71

for Alphabet to spin off



- 29 The indispensable Philippines
- 31 India's solar rollout
- 31 North Korean crypto-theft32 Banyan Meet the
- Tokugawas

China

- 33 How China views the war in Ukraine
- 34 Corruption in football
- 35 Growing more maize
- 36 Chaguan The meaning of protests

United States

- 37 Subsidies from the states
- 38 Chicago's mayoral election
- 39 Ohio's train derailment
- 40 The Adventist diet
- 41 A revival in Kentucky
- 42 Lexington The meaning of freedom

The Americas

- 43 The Mexican-us border
- 45 Colombia's gig economy
- 45 Drugs in Canada

Middle East & Africa

- 48 South Africa's messy foreign policy
- 49 A Nigerian scorpion-seller
- 50 Digital workers in Africa
- 50 Poor Saudi diplomacy
- 51 A royal claimant in Iran









Buildings this contraction and





Siles from the cash footh, in also tang an interfooth of the Indiana Autority Siles (1996) softe of the country of the softe of the country of the



Contents continues overleaf

H Contents o

Contents 6

The Economist February 25th 2023



- 52 German security
- 53 Russia's feeble offensive
- 54 Ukrainian military tech
- 55 Ukraine's wildlife
- 56 Charlemagne Trying Putin

Britain

- 57 Northern Ireland
- 58 Social-media sleuths

International 62 Ukraine's refugees, one year on

59 Bagehot Shamima Begum







Business

- 65 Asia's other supply chain
- 67 The new-look board
- 68 Bartleby Dullness and its discontents
- 69 Walmart's warning
- 69 Valuing Facebook
- 70 News in America
- 71 Schumpeter Freeing YouTube



Finance & economics

- 72 The \$13trn interest bill
- 74 China's lending revolution
- 75 Asia v international capital
- 76 Buttonwood Wall Street's China reservations
- 77 Europe's economy
- 78 Free exchange An ideal climate-change lender

Science & technology

79 Fraud in medical research

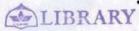




Culture

- 83 Rap lyrics in court
- 84 Memories of Europe
- 85 Chilli crisp
- 86 Assessing the Fed
- 86 Trinidad's ghosts
- 87 Back Story A parable of plunder

Economic & financial indicators





89 Statistics on 42 economies

Obituary

90 Bakhmut, the symbolic city





Volume 446 Number 9335

Published since September 1843 to take part in "a severe contest between intelligence, which presses forward, and on unworthy, timid ignorance obstructing our progress."

Editorial offices in London and also: Amsterdam, Beijing, Berlin, Brussels, Chicago, Dakar, Dallas, Dubai, Johannesburg, Madrid, Mexico City, Moscow, Mumbai, New Delhi, New York, Paris, San Francisco, Sao Paulo, Seoul, Shanphai, Sugaroon Tuba, Madrid Shanghai, Singapore, Tokyo, Washington DC

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

YALARY

If you are experiencing problems when trying to subscribe, please visit our Help pages at: www.economist.com/help for troubleshooting advice

To manage your account online, please visit my.economist.com where you can also access our live chat service which is available 24/7. To call us, contact our dedicated service centre on:

Asia: 001800 771 2711 Singapore: +61 2915 75069



PEFC

PEFC certified

This copy of The Economist is printed on paper sourced from sustainably managed forests, recycled and controlled sources certified by PEFC

www.pefc.org

© 2023 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 or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of The Economist Newspaper Limited. Published every week, except for a year-end double issue, by The Economist Newspaper Limited. The Economist is a registered trademark of The Economist Newspaper Limited. Publisher: The Economist Newspaper Limited by Times Printers (in Singapore). MCI (P) 044/09/2022. PPS 677/tr/202(022861)

		TH	IE NEW YORKER	151
		J	ANUARY 23, 2023	
			LIBRARY	
		II TH Ben a C	E TALK OF THE TOWN anjamin Wallace–Wells on G.O.P. chaos in the House; Citi Biker gang; painting pots with Wet Leg; copposite of vandalism; billionaires in space.	
	James Lasdun	16 Th	ITER FROM SOUTH CAROLINA the Swamp urder and corruption in the Murdaugh family.	
	Cora Frazier		OUTS & MURMURS fe Is Too Short	
	Rachel Monroe	24 Bu	NALS OF INNOVATION fild Better n 3-D printing help solve the housing crisis?	
	Evan Osnos	30 Tr	REPORTER AT LARGE ust Issues infessions of a disgruntled wealth manager.	
N. N.	Calvin Tomkins	42 A	OFILES Raucous Assault e art of Tala Madani.	
	Yiyun Li	50 "W	Vednesday's Child"	
	Rebecca Mead Merve Emre Nikhil Krishnan	BO 58 Pri 62 A c 67 Sex	E CRITICS OKS ince Harry's memoir, "Spare." crisis in literary criticism. cual dissidence in the Victorian era. iefly Noted	
	Inkoo Kang	72 "T	TELEVISION be Last of Us."	
	Rick Barot Ariel Francisco	36 "T	EMS 'he Lovers" aton Bleu"	
	Pascal Campion		VER Paybreak"	

DRAWINGS Anne Fizzard, Benjamin Schwartz, David Sipress, Karl Stevens, Suerynn Lee, Julia Leigh and Phillip Day, Tom Toro, Jeremy Nguyen, Maggie Larson, Elisabeth McNair, Ed Himelblau, Brooke Bourgeois, Ellis Rosen and Jerald Lewis, Sara Lautman SPOTS Francesco Ciccolella

A



THE YALE LAW JOURNAL

OCTOBER 2022 VOLUME 132, NUMBER 1

ARTICLES



- 1 The Administrative Agon: A Democratic Theory for a Conflictual Regulatory State Daniel E. Walters
- 96 Open Access, Interoperability, and DTCC's Unexpected Path to Monopoly Dan Awrey & Joshua C. Macey

FEATURE

171 Neutralizing the Atmosphere Shelley Welton

NOTE

250 Between Public and Private: Care Workers, Fissuring, and Labor Law Kyle Bigley

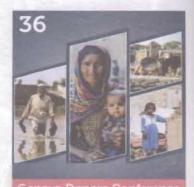
WORLD TIMES



GENERAL

- 4 | From the Editor's Desk
- 8 | Letters to the Editor
- 10 | World Agenda February 2023
- 66 23 Lessons for 2023
- 69 | Emoji
- 98 | 15 Japanese Concepts
- 102 | Messenger of Humanity

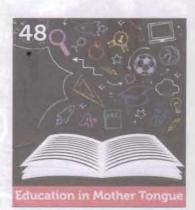
LIBRARY





INTERNATIONAL

- 12 | The Rise of Illiberalism
- 18 | Middle East in Biden's NSS
- 20 | Bibi's Return to Power
- 24 | Navigating Stormy Seas
- 28 | A Closer Look at the Indo-Pacific







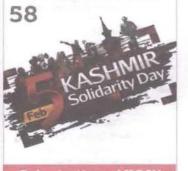
Shrinking Population

NATIONAL

- 40 | System of Police in Pakistan
- 43 | The One Percent Republic
- 46 | Reducing Inequalities
- 54 | The Fascinating Culture
- 64 | Pakistan's Economic Crisis





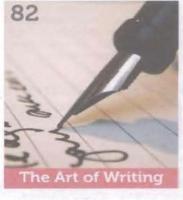


Colonization of IIOJK

74

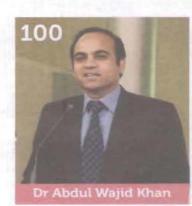
EXAM PACK

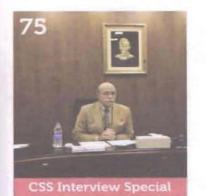
- 84 | Western Perception of Islam
- 88 | Post-Partition Problems
- 90 | Rebooting Judicial System
- 92 | Fiscal Federalism
- 93 | Undergraduate Education Policy



GK CORNER

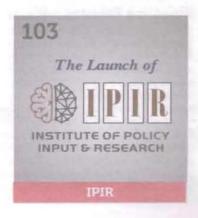
- 34 | House of Representatives
- 81 | Economic Recovery
- 116 | World in Focus





INTERVIEWS

- 62 | Rana Haseeb Ahmad (PAS) 22nd in Pakistan, CSS 2021-22
- 70 | Sadia Jafar 37th in Punjab, PMS 2020-21
- 72 | Javairia Bano Lecture (Political Science) Punjab Higher Education Dept.



Twenty-fifth Year of Publication

Part-2 REGD. No.CPL-06 VOL. XXV

ILAW CELIBRARY REPORTER [YLR]

Consisting Judgments of High Courts of Pakistan; Superior Courts of Azad Jammu and Kashmir and Gilgit-Baltistan on Civil, Criminal & Revenue Laws

FEBRUARY, 2023

Editors

MR. MUHAMMAD WAHAJ AZHAR, LL.B. (HONS.) (LOND.); LL.M. (LOND.); BAR-AT-LAW MR. KASHIF MIR ZUBAIR, LL.B. (HONS.) (WARWICK); LL.M. (LOND.)

Case-law

249 -- 496 25 -- 48

Headnotes of Cases

Mode of Citation: 2023 YLR 336 etc. 2023 YLR Note 36 etc.

THE

YEARLY LAW REPORTER

35-NABHA ROAD, LAHORE. Phones: 37356228/37356287/WhatsApp: 03020001524 Email: info@pldpublishers.com

Printed and Published by PLD Publishers at the Pakistan Educational Press, Lahore

> For regular subscribers: Rs.335/-(Postage/carriage estra) *Extra charges may apply 60 days after publication

- 1. Ali, A., Raza, A. A., & Qazi, I. A. (2023). Validated digital literacy measures for populations with low levels of internet experiences. Development Engineering, 100107.
- Ahmad, A., Albargi, H., Ali, M., Batool, M., Nazir, A., Qadir, M. B., ... & Harraz, F. A. (2023). Differential carbonization-shrinkage induced hierarchically rough PAN/PDMS nanofiber composite membrane for robust multimodal superhydrophobic applications. Journal of Science: Advanced Materials and Devices, 8(2), 100536.
- 3. Shahid, S., Batool, S., Khaliq, A., Ahmad, S., Batool, H., Sajjad, M., & Akhtar, M. W. (2023). Improved Catalytic Efficiency of Chimeric Xylanase 10B from Thermotoga petrophila RKU1 and its Synergy With Cellulases. Enzyme and Microbial Technology, 110213.
- 4. Khalil, M., Bashir, A., Alghamdi, E. A., Siddig, A. A., Ramay, S. M., & Saleem, M. (2023). Study of epsilon-near-zero response in Al substituted titanium oxynitride thin films using computational and experimental investigations. Materials Science and Engineering: B, 291, 116369.
- 5. Nasir, Z., Sabir, A., Salman, H. M., Ashraf, M. U., Khalid, M. F., Khalid, M. B., ... & Chaudhary, S. U. (2023). Fingerprinting of heavy metal and microbial contamination uncovers the unprecedented scale of water pollution and its implication on human health around transboundary Hudiara drain in South Asia. Environmental Technology & Innovation, 103040.
- 6. Ali, A., Hussain, M. A., Abbas, A., Haseeb, M. T., Azhar, I., Muhammad, G., ... & Alotaibi, N. F. (2023). Succinylated Salvia spinosa hydrogel: Modification, characterization, cadmium-uptake from spiked high-hardness groundwater and statistical analysis of sorption data. Journal of Molecular Liquids, 121438.
- Aldossary, N. J., Rashid, A. M., Waris, A., Siddique, N., Khan, M. A., Javaid, S. S., ... & Menezes, R. G. (2023). Bibliometric analysis of the literature on von Willebrand disease: Research status and trends. Acta Bio-medica: Atenei Parmensis, 94(1), e2023061-e2023061.
- 8. Tahir, A., Arshad, F., Haq, T. U., Hussain, I., Hussain, S. Z., & Rehman, H. U. (2023). Roles of Metal Oxide Nanostructure-Based Substrates in Sustainable Electrochemical Water Splitting: Recent Development and Future Perspective. ACS Applied Nano Materials.
- 9. Ali, H., Beltran, H., Lindsey, N. J., & Pecht, M. (2023). Assessment of the calendar aging of lithium-ion batteries for a long-term—Space missions. Transit, 4(2.7), 2-1.
- Junaid, M., Sun, J., Iqbal, A., Sohail, M., Zafar, S., & Khan, A. (2023). Mapping LULC Dynamics and Its Potential Implication on Forest Cover in Malam Jabba Region with Landsat Time Series Imagery and Random Forest classification. Sustainability, 15(3), 1858.
- Shabbir, M. S., Mahmood, A., Setiawan, R., Nasirin, C., Arshad, M. A., Khan, S., & Batool, F. (2021). Closed-loop supply chain network design with sustainability and resiliency criteria (Doctoral dissertation, Petra Christian University).
- 12. Kamal, R., Ching, C., Zaman, M. H., Sultan, F., Abbas, S., Khan, E., ... & Nizamuddin, S. (2023). Identification of Multiple Variant Extensively Drug-Resistant Typhoid Infections across

Pakistan. The American Journal of Tropical Medicine and Hygiene, 108(2), 278-284.

- 13. Yahya, M., Rasul, M., Hussain, S. Z., Dilawar, A., Ullah, M., Rajput, L., ... & Yasmin, S. (2022). Integrated analysis of potential microbial consortia, soil nutritional status, and agro-climatic datasets to modulate P nutrient uptake and yield effectiveness of wheat under climate change resilience. Frontiers in Plant Science, 13.
- 14. Khan, K., Qayyum, S., Hanif, M. B., Rauf, S., Sultan, A., Mosiałek, M., ... & Lin, B. (2023). Design of efficient and durable symmetrical protonic ceramic fuel cells at intermediate temperatures via B-site doping of Ni in BaCeo. 56Zro. 2Nio. 04Yo. 2O3–δ. Ceramics International.
- 15. Rahman Malik, M. A., Butt, A. N., & Zahid, F. Drivers of radical and incremental creativity—A moderated mediation framework. Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration.
- 16. Zhang, X., Yan, W., Song, Z., Asif, S., Hussain, I., Xiao, C., & Chen, X. DNA Nanogel for Cancer Therapy. Advanced Therapeutics, 2200287.
- 17. Qasim, U. B., Riaz, M. H., & Imran, H. (2023). Investigation of soiling effects for east/west vertical bifacial and north/south tilted monofacial photovoltaic farms. Energy & Environment, 0958305X221143410.
- 18. Bayerl, P. S., Shahid, S., & Moitroux, P. (2023). Why bystanders (don't) post about violence: Contextualizing individual versus socialized rationales of observers' publication intentions. Social Media+ Society, 9(1), 20563051221150414.
- Ullah, H., Czapp, S., Szultka, S., Tariq, H., Qasim, U. B., & Imran, H. (2023). Crystalline Silicon (c-Si)-Based Tunnel Oxide Passivated Contact (TOPCon) Solar Cells: A Review. Energies, 16(2), 715.
- 20. Saif, R., Nadeem, S., Khaliq, A., Zia, S., & Iftekhar, A. (2023). Mathematical Understanding of Sequence Alignment and Phylogenetic Algorithms: A Comprehensive Review of Computation of Different Methods. Advancements in Life Sciences, 9(4), 401-411.
- 21. Asghar, M. Z., Afzaal, M. N., Iqbal, J., Waqar, Y., & Seitamaa-Hakkarainen, P. (2022). Evaluation of In-Service Vocational Teacher Training Program: A Blend of Face-to-Face, Online and Offline Learning Approaches. Sustainability, 14(21), 13906.
- 22. Zakir, S., Madni, A., Bilal, R. M. H., & Massoud, Y. (2022, December). Highly efficient broadband anisotropic metasurface for cross polarization conversion operating in the terahertz band. In Nanophotonics, Micro/Nano Optics, and Plasmonics VIII (Vol. 12322, pp. 23-30). SPIE.
- 23. Tahir, A., Haq, T. U., Aftab, F., Zaheer, M., Duran, H., Kirchhoff, K., ... & Arshad, S. N. (2023). Amorphous to Crystalline Ni₃S₂ Nanostructures Anchored on N-Doped Carbon Nanofibers for Electrochemical Splitting of Water. ACS Applied Nano Materials.
- 24. Qutab, S., Siddique, N., Khan, M. A., & Ullah, F. S. (2022). A comparison of Q Index Ranked Journals: Library and information Science productivity and research trends (2011-2020). Pakistan Journal of Information Management & Libraries, 24.
- 25. Khan, A. H., Ikram, H., Ahmed, C. M., Hassan, N. U., & Uzmi, Z. A. (2022, December). Energy Level Spoofing Attacks and Countermeasures in Blockchain-enabled IoT. In GLOBECOM 2022-

2022 IEEE Global Communications Conference (pp. 4322-4327). IEEE.

- 26. Khan, A., Naqvi, I. H., & Hassan, N. U. (2022, November). Towards Making Intelligent Decisions on SOC Strategies for EV Battery Life Enhancement under Practical DoD Ranges. In 2022 IEEE PES Innovative Smart Grid Technologies-Asia (ISGT Asia) (pp. 295-299). IEEE.
- 27. Tarar, M. O., Hassan, N. U., & Naqvi, I. H. (2022, November). Higher Training Size, Increased Model Complexity or Both: A Novel Decision Framework for Cycle Life Classification of Lithium-Ion Cells. In 2022 IEEE PES Innovative Smart Grid Technologies-Asia (ISGT Asia) (pp. 81-85). IEEE.
- 28. Raza, K., Naqvi, I. H., & Hassan, N. U. (2022, November). EV Driving Across Seasons: SOC strategies for Higher Battery Life Expectancy. In 2022 IEEE PES Innovative Smart Grid Technologies-Asia (ISGT Asia) (pp. 300-304). IEEE.
- 29. Bajwa, I. A., Faheem, M. A., Siddique, N., Khan, A., & Bajwa, F. A. (2022). What Business Researchers are producing during Covid-19 A bibliometric approach. Pakistan Journal of Information Management & Libraries, 24.
- 30. Akbar, A. (2022, October). Polarization Characteristics of a Single Photon via Two Qubit Quantum State Tomography. In Laser Science (pp. JTu5B-13). Optica Publishing Group.

Boo

JOHN G. MATSUSAKA ет тне $\Xi(\mathbf{0})\mathbf{P}$ You can reach @ KIC 321.8 M434L 2020 **How Direct Democracy** Can Meet the Populist Challenge **Overview**

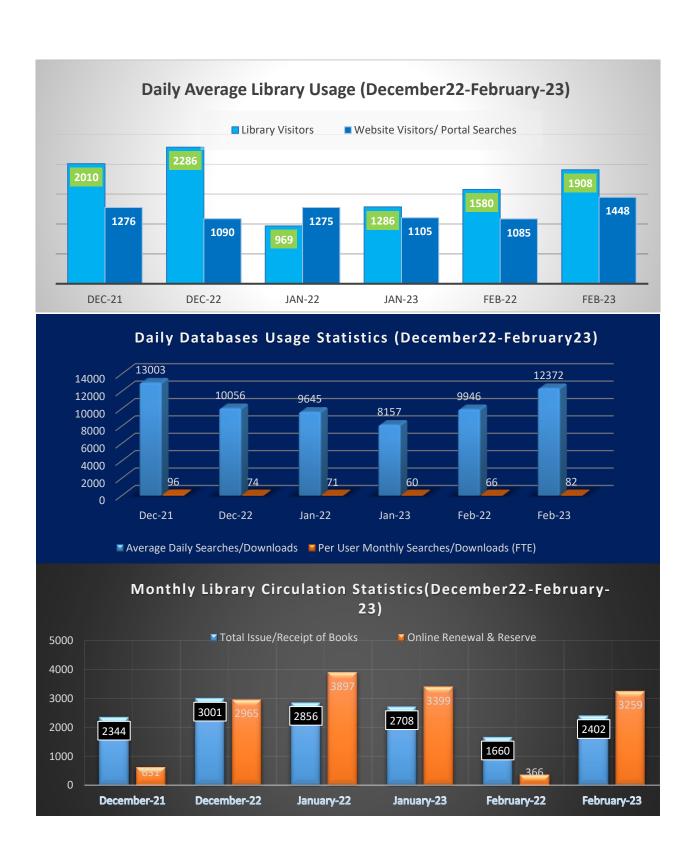
"Propelled by the belief that government has slipped out of the hands of ordinary citizens, a surging wave of populism is destabilizing democracies around the world. As John Matsusaka reveals in Let the People Rule, this belief is based in fact. Over the past century, while democratic governments have become more efficient, they have also become more disconnected from the people they purport to represent. The solution Matsusaka advances is familiar but surprisingly underused: direct democracy, in the form of referendums. While this might seem like a dangerous idea post-Brexit, there is a great deal of evidence that, with careful design and thoughtful implementation, referendums can help bridge the growing gulf between the government and the people. Drawing on examples from around the world, Matsusaka shows how direct democracy can bring policies back in line with the will of the people (and provide other benefits, like curbing corruption). Taking lessons from failed processes like Brexit, he also describes what issues are best suited to referendums and how they should be designed, and he tackles questions that have long vexed direct democracy: can voters be trusted to choose reasonable policies, and can minority rights survive majority decisions? The result is one of the most comprehensive examinations of direct democracy to date-coupled with concrete, nonpartisan proposals for how countries can make the most of the powerful tools that referendums offer. With a crisis of representation hobbling democracies across the globe, Let the People Rule offers important new ideas about the crucial role the referendum can play in the future of government"---

Product Details

ISBN-13: Publication date: Pages:

9780691199726 2020 312 pages

Monthly Statistics





www.lums.edu.pk