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Defence

DISRUPTION,
MADE CONSTRUCTIVE

Changing how industry works so the military can
transform how it trains

DISTEC, April 2022

B-1B Lancer tail number 85-0092 is lifted and placed on flatbed trailers for its journey to Wichita, Kan., on April 24, 2020. The National Institute for Aviation Research at Wichita State University planned to scan every part of the aircraft to create a digital twin for research. (Daryl Mayer/U.S. Air Force)

The U.S. war-fighting leadership faces two real and growing threats — one external, one internal. We can't control or fully predict the external threat but, internally, there is much we can do.

Lethality, agility, speed and technology: These words describe our capacity to fight. Yet, much of our war capacity is held back by reliability issues — the bane of all war fighters.

Nearly two-fifths of the Department of Defense budget — $290 billion — focuses on operations and maintenance to ensure weapon system readiness. This means less money for new equipment, less equipment availability and less fighting capacity. Those liabilities

EXCLUSIVE
Ministry of Defence secrets exposed by people sending files to personal email accounts, documents show

There were a record number of security incidents across the UK defence industry last year, heavily redacted documents reveal.

Alexander Martin
Technology reporter @AlexMartin

© Monday 15 March 2021 16:02 UK

Image Credits: Wiri SA/Xinhua / Getty Images

Faculty, a VC-backed artificial intelligence startup, has won a tender to work with the NHS to make better predictions about its future requirements for patients, based on data drawn from how it handled the COVID-19 pandemic.

In December 2019, Faculty raised a $10.5 million Series A funding round from U.K.-based VCs Local Globe, GMG Ventures, and Jaan Tallinn, one of Skype's founding engineers, giving it a valuation of around $100 million.

Faculty will work with NHS England and NHS Improvement to build upon the Early Warning System (EWS) it developed for the service during the pandemic. Based on Bayesian hierarchical modeling, Faculty says the EWS uses aggregate data (for example, COVID-19 positive case numbers, 111 calls and mobility data) to warn hospitals about potential spikes in cases so they can divert staff, beds and equipment needed. This learning will now be applied across the whole of the service, for new improvements, such as improving service delivery and patient care and predicting A&E demand and winter pressures.

Noel Sharkey
The age of cyber warfare is a threat to us all

☐ From magazine issue: 1 May 2021

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THANKS! WE'RE JUST BROWSING

CAN I HELP YOU GUYS?

HEATH

In his recent State of the Nation address, Vladimir Putin said that if challenged by another state, Russia's response would be swift, harsh and 'asymmetrical'. An unusual word, but anyone who has been paying attention to the developments in cyber warfare will know what he means. Despite Russia pulling back more than 100,000 soldiers positioned on the Ukrainian border, British troops will shortly join Ukrainian countrymen to

GETTY IMAGES

The new rules distinguish between high and low risk AI systems

The use of facial recognition for surveillance, or algorithms that manipulate human behaviour, will be banned under proposed EU regulations on artificial intelligence.

Cyber security

Hackers can stop the trains and the lights. But could they start a war?

Total meltdown or death by a thousand hacks — how bad could a cyberwar get? And where is the line between espionage and all-out attack?

By Sherryn Groch
APRIL 18, 2021

On the morning of June 27, 2017, it seemed as if Ukraine had slipped back in time and into the wrong century – almost nothing worked. Not the ATMs, the trains, the airports, the television stations. Even the radiation monitors at the old Chernobyl nuclear plant were down.

Ukraine, in the midst of a long and undeclared war with Russia, had been hit by mysterious blackouts before but this was eating through computer networks at a terrifying pace, turning screens dark across the country. And it seemed to be spreading further than intended, out through Europe and around the globe, paralysing hospitals and companies from London to Denver, even the Cadbury chocolate factory in Tasmania, and bringing swathes of the world's shipping to a halt. By the time the culprit – a wild

US fuel pipeline hackers 'didn't mean to create problems'

By Mary-Ann Russon
Business reporter, BBC News

© 18 hours ago

⌂ Share

COLONIAL PIPELINE

A cyber-criminal gang that took a major US fuel pipeline offline over the weekend has acknowledged the incident in a public statement.

Will the Five Eyes stare down China's economic coercion?

JAMES LAURENCESON

Trade figures suggest promises to "have Australia's back" are yet to be matched by economic solidarity.

A police officer standing at the entrance gate of the Australian embassy in Beijing in July 2020 (Nicolas Asfouri/AFP via Getty Images)

Published 20 Apr 2021 12:00 | 2 Comments | China, Australia, Trade | ✔ Follow @j_laurenceson

Next month brings the inauspicious one-year anniversary of China ramping up a campaign of trade punishment against Australia. Wine, barley, beef, lobster and coal have all been targeted. And there's no end in sight.

Weary Australian government ministers could be forgiven for taking solace in a series of supportive statements from the Biden administration, as well as by senior politicians and officials in other liberal democratic countries. Last month, Trade Minister Dan Tehan said, "I

Putin warns of tough Russian action if West crosses 'red line'

© 21 April

☐ Ukraine conflict

REUTERS

Mr Putin has seldom appeared in public since the pandemic began

Russian President Vladimir Putin has warned the West not to cross a "red line" with Russia, saying such a move would trigger an "asymmetrical, rapid and harsh" response.

The warning came in his annual state of the nation address, amid heightened tension with the West over Ukraine and jailed Putin critic Alexei Navalny.

Mr Putin said Western powers were constantly trying to "pick on" Russia.

Police have detained nearly 100 Navalny supporters rallying in several cities.

Hundreds staged pro-Navalny protests on Wednesday in eastern cities including Vladivostok, Irkutsk and Krasnoyarsk. The authorities have declared them illegal.

British Army soldier units wearing Virtus body armour, a real-world system designed for increased

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NATO has organised the world's largest cyber war game, which will kick off tomorrow

☐ Why you can trust Sky News

Military cyber security specialists are preparing for the largest cyber war game in the world, which kicks off tomorrow as the fictional NATO member state of Berylia comes under attack.

The real-time NATO exercise will include defenders practising the protection of critical civilian and military infrastructure, including water treatment facilities and energy plants.

Amid the increasing risk of real international conflict, the exercise will

Beijing's 'Little Blue Men' spread across South China Sea as Britain sends strike group

Maritime militia have been secretly embedded into China's fishing fleet to intimidate and squeeze out rival claimants to the waters

By Nicola Smith, ASIA CORRESPONDENT and Sophia Yan, CHINA CORRESPONDENT

2 May 2021 • 8:00pm

Chinese vessels anchored at the Whitsun Reef, around 175 nautical miles west of Bataraza in Palawan in the South China Sea. The boats gathered near a disputed reef in the South China Sea for 'fishing boats' sheltering from poor weather, the China foreign ministry said, a day after the Philippines described their presence as an 'incursion'. CREDIT: AFP

As she picked up a camera lens to zoom in on two specks on the horizon that were racing across the South China Sea towards her boat, Philippine journalist Chiara Zambrano froze in shock....
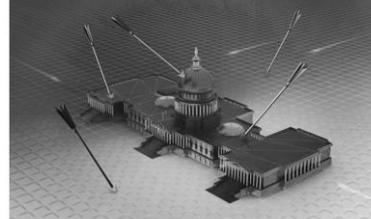
WE'RE LOSING GROUND

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WHAT WORKED BEFORE WILL NOT WORK IN THE FUTURE.

Governments and militaries aren't getting the capabilities they need – and they're telling us loud and clear.

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WE NEED NEW RELATIONSHIPS

— with government
— with academia
— with one another

TO UNLOCK

— the best technologies
— faster delivery of new capabilities
— improved innovation and experimentation

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A CALL FOR CHANGE

"The imperative to rapidly transform the Armed Forces in particular into an integrated, Information Age force requires a new relationship with our partners in industry and academia - including nontraditional suppliers - focusing efforts to accelerate the research, development and exploitation of new technologies and capabilities."

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/971983/Defence_and_Security_Industrial_Strategy_-_FINAL.pdf

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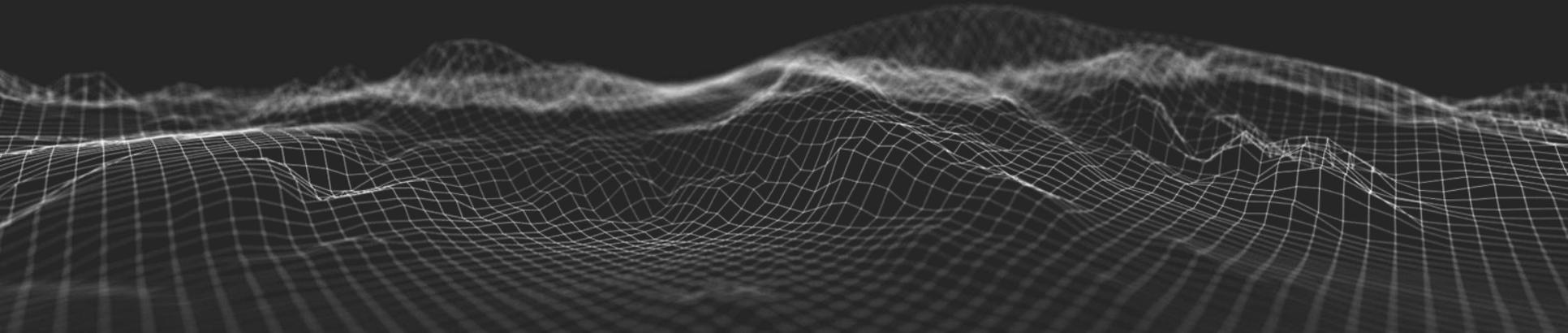
SILICON VALLEY TAKES ON THE 'VALLEY OF DEATH'

"Time is running out with Silicon Valley," warned Katherine Boyle, general partner at venture capital firm Andreessen Horowitz, also known as a16z, which is based in the region.

National DEFENSE Magazine, January 26 2022, By Jon Harper

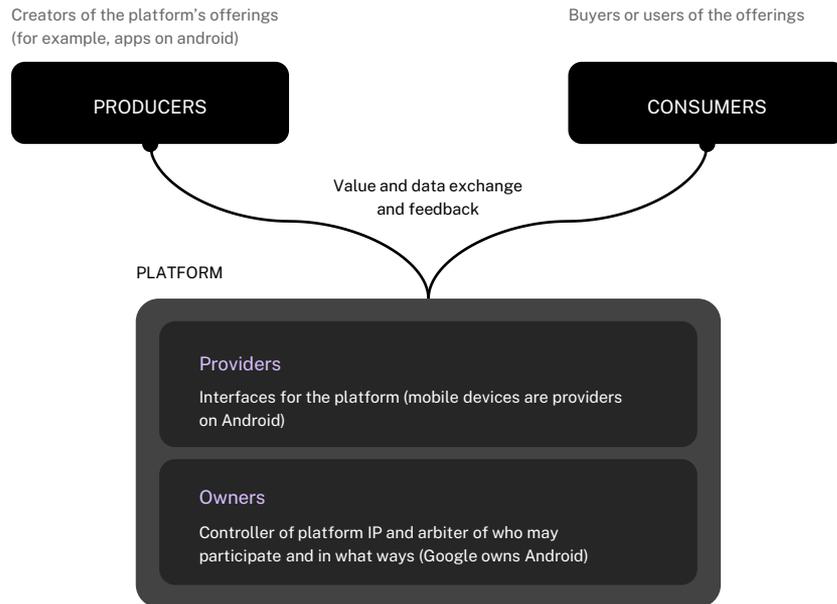https://www.nationaldefensemagazine.org/articles/2022/1/26/silicon-valley-takes-on-the-valley-of-death

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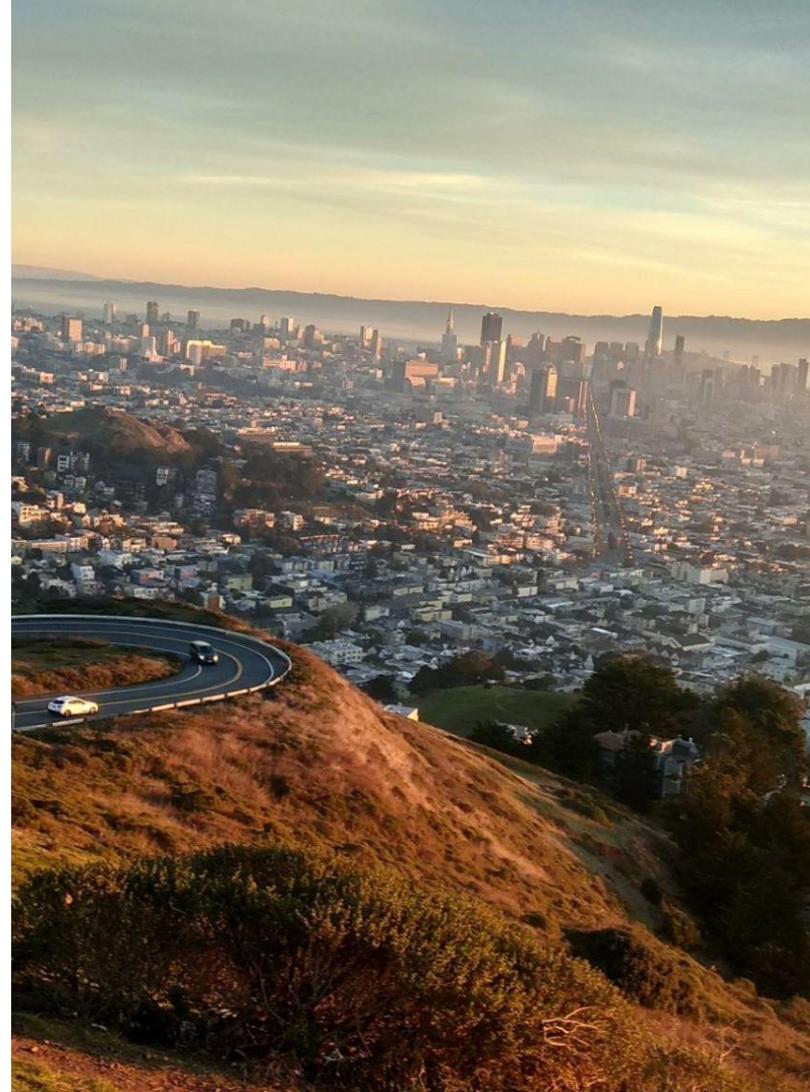
THE PLATFORM BUSINESS MODEL

Moving from vertically built pipeline solutions to
horizontally scaled platform ecosystem.

https://hbr.org/2016/04/pipelines-platforms-and-the-new-rules-of-strategy

Creators of the platform's offerings
(for example, apps on android)

Buyers or users of the offerings

PRODUCERS

CONSUMERS

Value and data exchange
and feedback

PLATFORM

Providers
Interfaces for the platform (mobile devices are providers
on Android)

Owners
Controller of platform IP and arbiter of who may
participate and in what ways (Google owns Android)

WHAT DO WE MEAN BY 'PLATFORM'?

CONTENT ECOSYSTEM
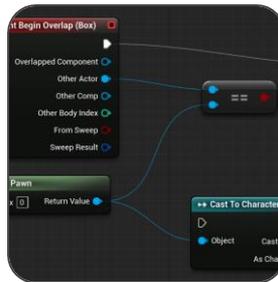
UE Marketplace

DEVELOPER TOOLS & SERVICES

UE Developer Tool Suite

SOLUTION DISTRIBUTION & DEPLOYMENT

Epic Games Store & Gaming Systems

Producer

Consumer

Producer

Consumer

PLATFORM
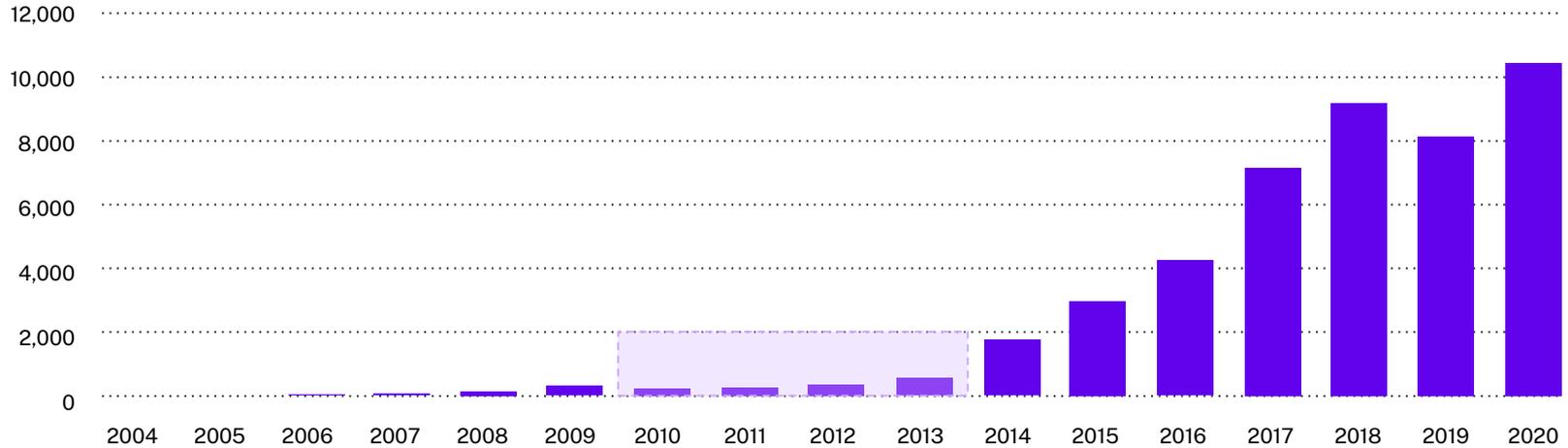
PROVIDERS
Approver + Owner

PLATFORM

PROVIDERS
Approver + Owner
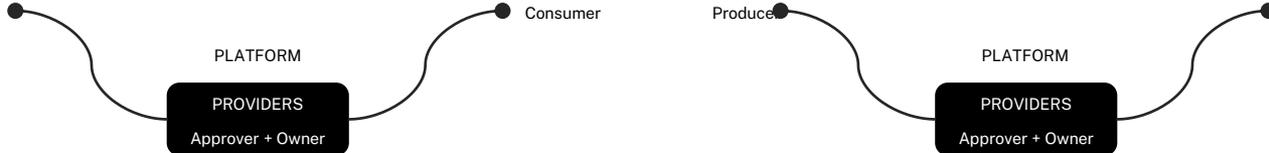
NUMBER OF GAMES
RELEASED ON STEAM
WORLDWIDE FROM 2004

Games industry shifted
from pipeline to
platform approach of
development.

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CHANGE IN MOTION

Digital transformation is critical in an
era of constant competition.

US JAIC
Joint Common Foundation

UK MOD DEFENCE DIGITAL
Digital Foundry and DSEP

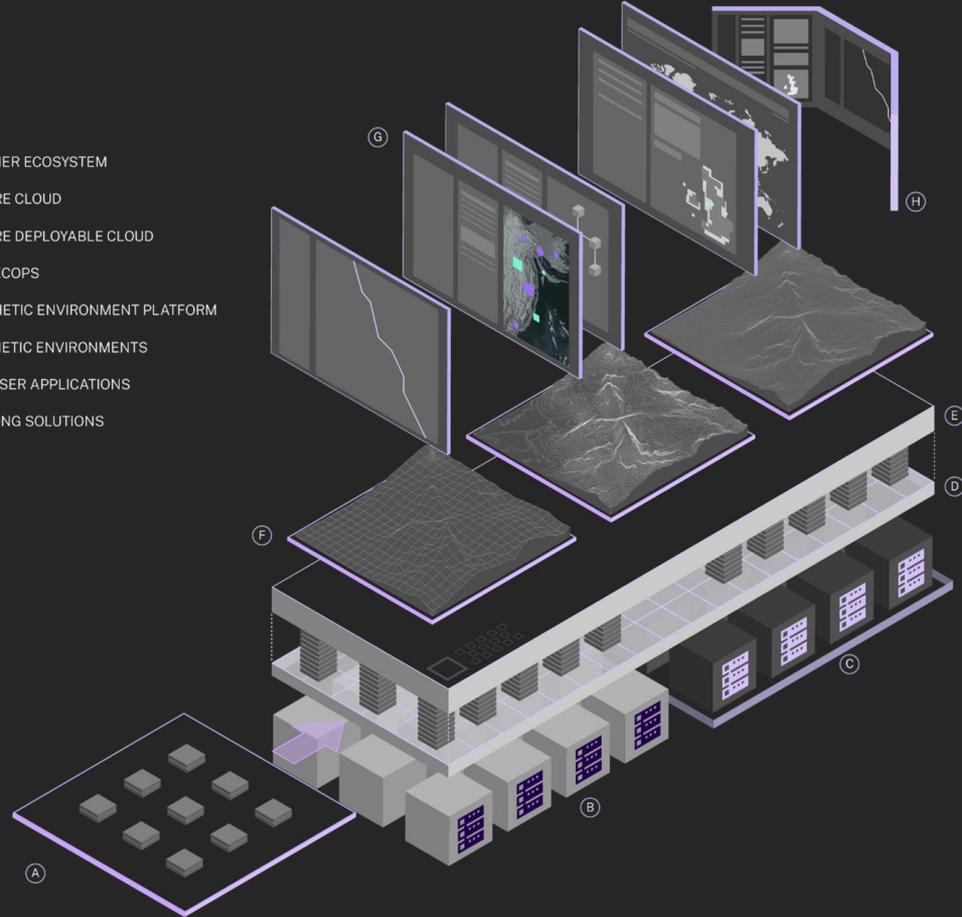UK ROYAL NAVY
Nelson

US AIR FORCE
Platform 1

HORIZONTAL DELIVERY IN CONTEXT

(A) PARTNER ECOSYSTEM

(B) SECURE CLOUD

(C) SECURE DEPLOYABLE CLOUD

(D) DEVSECOPS

(E) SYNTHETIC ENVIRONMENT PLATFORM

(F) SYNTHETIC ENVIRONMENTS

(G) END-USER APPLICATIONS

(H) TRAINING SOLUTIONS

DISRUPTION MADE CONSTRUCTIVE
THROUGH COLLABORATION

Our strength lies in our collaboration.

We need to shift the way we develop and deliver
technology.

Leading the digital future is within our grasp.

Q&A