



THE UNIVERSITY *of* EDINBURGH

UNIVERSITY OF EDINBURGH

# WEB STRATEGY 2018-21

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PREPARED BY THE UNIVERSITY OF EDINBURGH  
WEB STRATEGY DEVELOPMENT TEAM

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# Introduction

This strategy addresses how the University of Edinburgh uses web technologies to enhance our students' experience, disseminate our best research and engage with our diverse audiences.

The University's web estate and use of online channels has evolved largely organically, which has led to gaps in corporate knowledge and exposed the institution to significant risks. There is a fragmentation of technology, working methods and standards, which leads to uneven and, in some cases, broken user journeys.

This strategy seeks to address these issues, with a tight focus on the University's vision to deliver impact for society through leadership in learning and research.

While University websites, including the corporate website and MyEd portal, are at the core of the strategy, strong consideration is also given to online channels as a point of user acquisition and engagement.

It is important to recognise that technology is not a solution in itself but an enabler. Whether delivered centrally or locally, there is a clear need to empower our staff by providing them with the intelligence, tools, standards and resources to attract and engage users.

Our vision is founded on a need to work together in the use of web technologies to achieve business goals across the University, developing the operational agility to take advantage of the most promising online opportunities.

The strategic themes, objectives and activities align with the University's Vision 2025, Corporate Plan 2016 and other significant institutional and national strategies, and complement initiatives such as Service Excellence and Digital Transformation.

This strategy was developed in the manner in which it should be executed – collaboratively – and the launch of the University's new web governance will give strong senior leadership while engaging publishers and practitioners across the University.



**VISION FOR 2021:  
WE DELIVER VALUE  
ONLINE BY WORKING  
TOGETHER TO CREATE  
A CONSISTENTLY  
EXCELLENT USER  
EXPERIENCE FOR OUR  
GLOBAL AND LOCAL  
AUDIENCES.**

## Our Web Estate: By the Numbers



**1,709**

The number of **websites hosted by the University**.

This does not include websites hosted externally or the 523 test websites.



**1.07 million**

The total number of **indexed page results** by the Google search engine across our web estate.



**100 million**

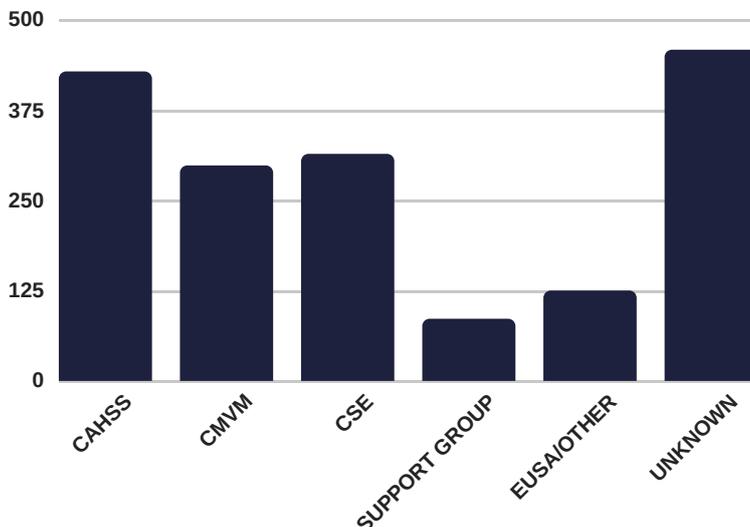
The number of **unique page views** across the ed.ac.uk domain in 2017, generated from more than 38 million sessions.

## Operational Health



Half of the websites in the 2017 audit have 'amber' issues that require further investigation across areas such as security and accessibility. A small number had 'red' issues with security certificates which have since been resolved.

## Ownership



**458**

University websites do not have an allocated business unit while almost half of our web estate doesn't have a named business owner or contact details.

# Background & Scope

## Strategic Alignment

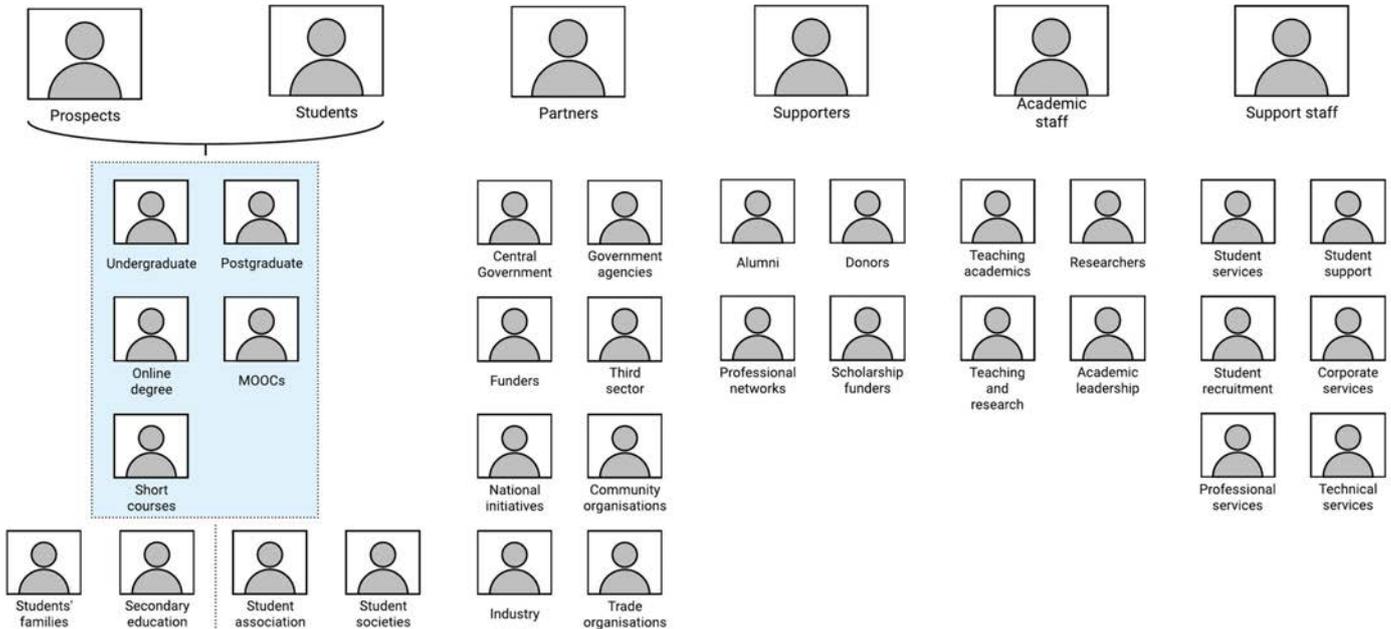
The web strategy aligns with national and organisational strategies, plans and activities. In the case of the University’s Corporate Plan 2016 and University Vision 2025, analysis has taken place to understand where web technologies are best able to underwrite strategic objectives, including widening participation; student recruitment; enhancing student experience; disseminating research; and engaging with partners.

The strategy does not set out to answer the exclusive needs of a business area or address a single specific University activity. As a pan-institutional strategy, it establishes a framework for the use of web technologies, both centrally and locally, to achieve business goals.

The Web Governance Group, as the executive of the newly installed web governance, own the web strategy and set the priorities for centrally managed platforms, such as the University Website and the MyEd portal, based on University strategic priorities.

## Our Users

The users of the University’s websites and online channels reflect its diverse remit and activities. Applying broad definitions to user groups is not useful for the purpose of the web strategy. For example, to categorise ‘students’ as a single entity misses the complexity of their lifetime of engagement with the University – from pre-application to graduation and beyond. The below user map shows groups which have been identified during the development of the strategy.



User map for the University's online groups

There is currently limited intelligence about the users of the University’s websites, due to the disconnected nature of the web estate and poor flow of data between web interfaces and systems of record. For example, data from Google Analytics reveals that 61% of University Website users in 2017 were ‘millennials’ (17 to 36 years-old) but no relational data is available to identify a specific user group within this data set.

The University’s online engagement with a user is defined by the context of purpose. This strategy seeks to enable the University to better understand its users and, therefore, enhance the quality and value of engagement for specific business purposes.

## University Website and MyEd Portal

The University Website ([www.ed.ac.uk](http://www.ed.ac.uk)) and the MyEd portal garner the lion's share of web traffic, with more than 12 million visitors in 2017. It is worth noting that the University Website is only one of 1,709 known websites – a figure which does not take account of the number of websites hosted externally.

Almost 70% of business units use the University Website, which contains in the region of 400 distinct sections. The MyEd portal is a critical service for students, staff and other audiences, acting as an authenticated access point to a variety of University services and containing around 100 content channels.

While there is technical and operational governance, both the University Website and MyEd are optional corporate services and there is a dependency on business uptake. Alignment with the wider web estate and online channels to improve the quality of user journeys is limited.

## University Web Estate

Following a review of existing web services, the Internal Audit department recommended that there should be a record of locally managed websites to mitigate risk to the University and ensure that there is a mechanism to detect any new websites. To this end, ISG conducted a web estate audit in late 2017.

The lack of corporate knowledge and relevant controls around the University web estate puts the institution in a position of risk in relation to meeting regulatory and legal standards, reputational damage, cost inefficiencies and loss of income.

Specific issues identified during the audit include:

- Uneven technical configuration resulting in vulnerabilities and security risks
- Limited re-use of technologies and tools resulting in cost inefficiencies
- Legislative compliance issues, such as appropriate controls to comply with GDPR
- Gaps in accountable business owners and the associated impact on business continuity
- Poor student experience online is an impediment to a core strategic aim of the University
- Content quality and duplication impacting search engine performance and user attrition

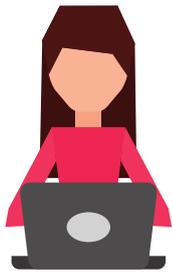
This is not to denigrate the application and skills of local practitioners – there are examples of excellent user experience throughout the estate, and these must be shared to ensure that the University benefits more widely.

## Online Channels

When considering the scope of this strategy, it is important to understand the sources of web traffic and the points of engagement with users. Excluding traffic to the MyEd portal, 67% of traffic to the University website in 2017 came directly from search engines, such as Google, yet there is no clear corporate ownership or leadership in Search Engine Optimisation (SEO).

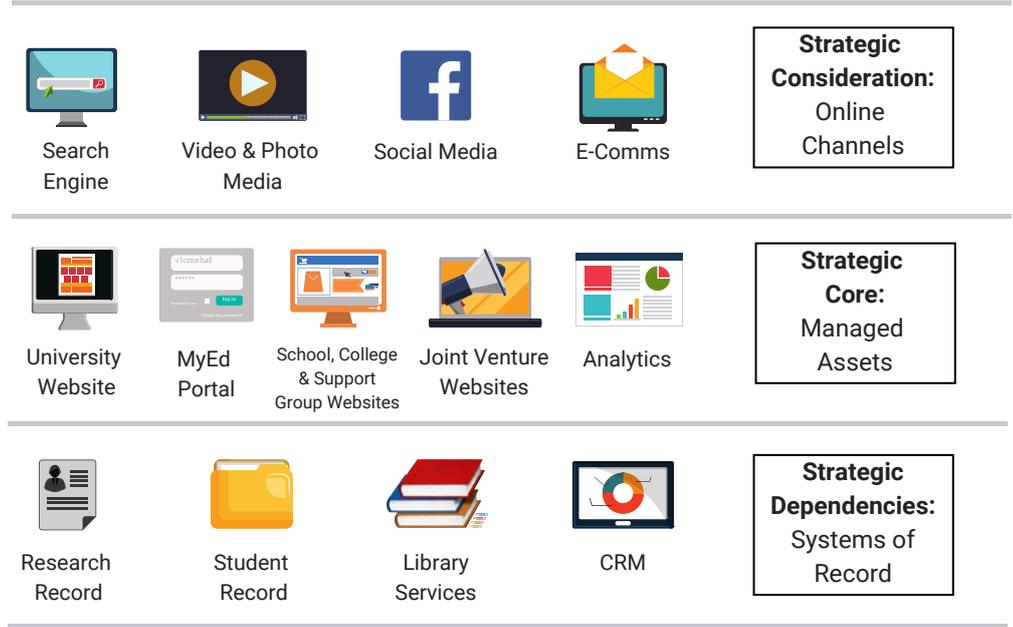
A 2017 survey conducted by TerminalFour across 333 HE institutions revealed that 62% viewed Facebook as the social media platform most likely to engage students, followed by other channels such as Instagram and Twitter. The University's own Digital Footprint survey reflects this, with more than 40% of students across all categories regularly creating or uploading content to Facebook and Instagram.

HE web and social media analysis conducted by EduRank assessed performance based on metrics such as audience size, activity and engagement. For the academic year 2016-17 the University ranked 26th among UK institutions, with an above average score for web performance but scoring poorly across social media and search engines. Clearly, performance online does not match the University's standing in the sector.



### Technology Scope

The technology scope is driven by a combination of business and user need. Websites cannot be viewed in isolation and Online Channels as a point of engagement must be considered. Equally, web has a dependency on Systems of Record due to the growing need for data to drive better user experiences.



*The range of technologies that are in the scope of this strategy*

### Not in Scope

Intranets – such as SharePoint and Wiki – have been the cause of much debate during the development of the strategy. A wider investigation of web content and purpose is required to understand the use of this technology and this has been addressed in the Content Audit proposed in the strategic activities. Learning and Teaching technologies are not in the scope of this strategy although these systems are recognised as dependencies.

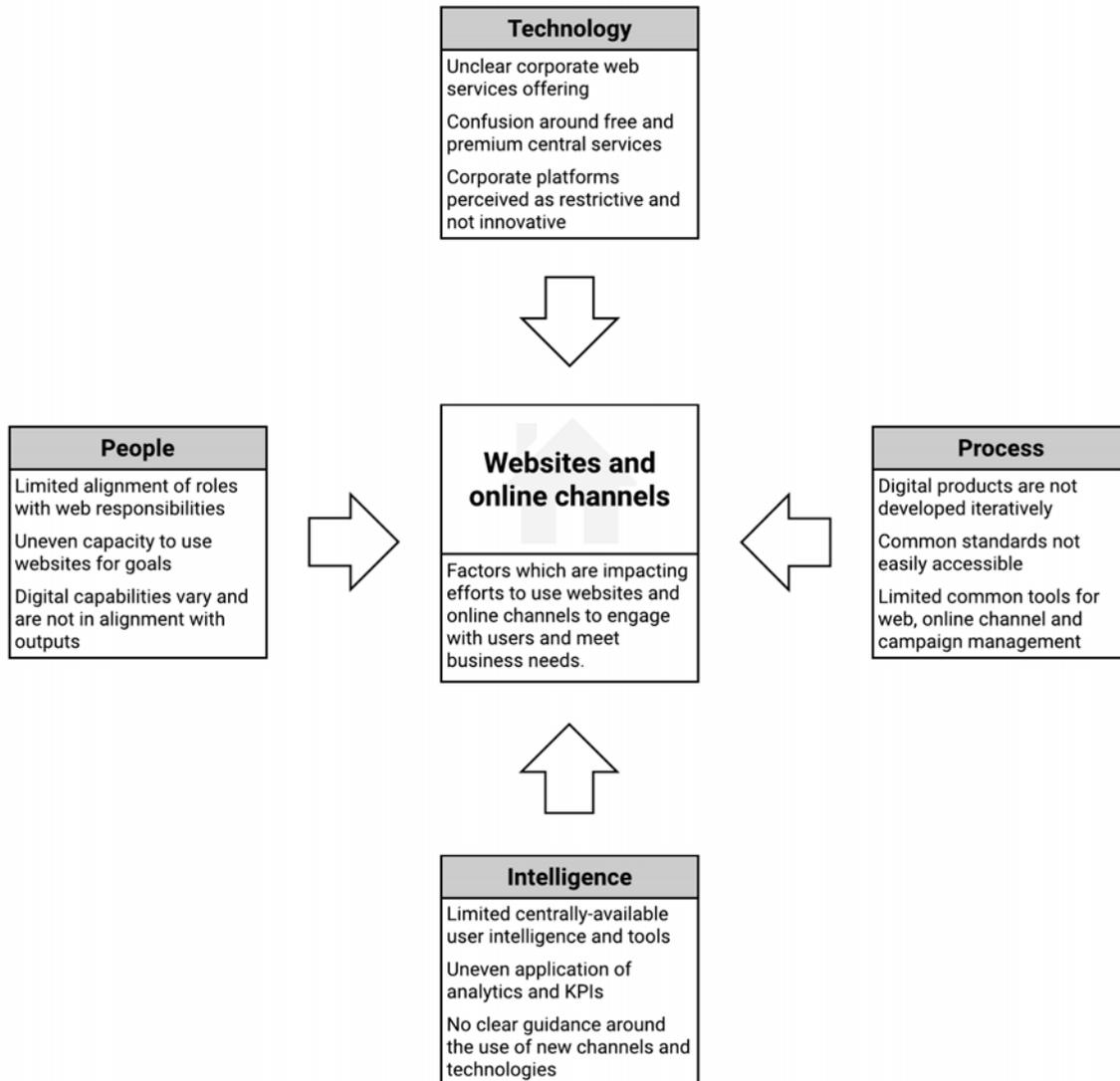
### Conclusions

The technology environment, user behaviour and HE sector is evolving dramatically and the University can no longer view websites in isolation. For this reason, this strategy gives due consideration to the means of user acquisition and engagement through online channels and websites across the institution. The strategy must also consider the current and potential sources of data as a dependency.

# Enabling Our People

Undoubtedly, the greatest challenge in designing and delivering the web strategy is the devolved operating model of the University. There are 1,291 registered editors on the University website who created in excess of 13,000 new pages in 2017.

Discovery workshops with Schools, Colleges and Support Groups identified factors and associated issues in the use of both corporate web services (such as the University Website and MyEd) and locally managed or hosted services. The key issues identified have been detailed in the diagram below.

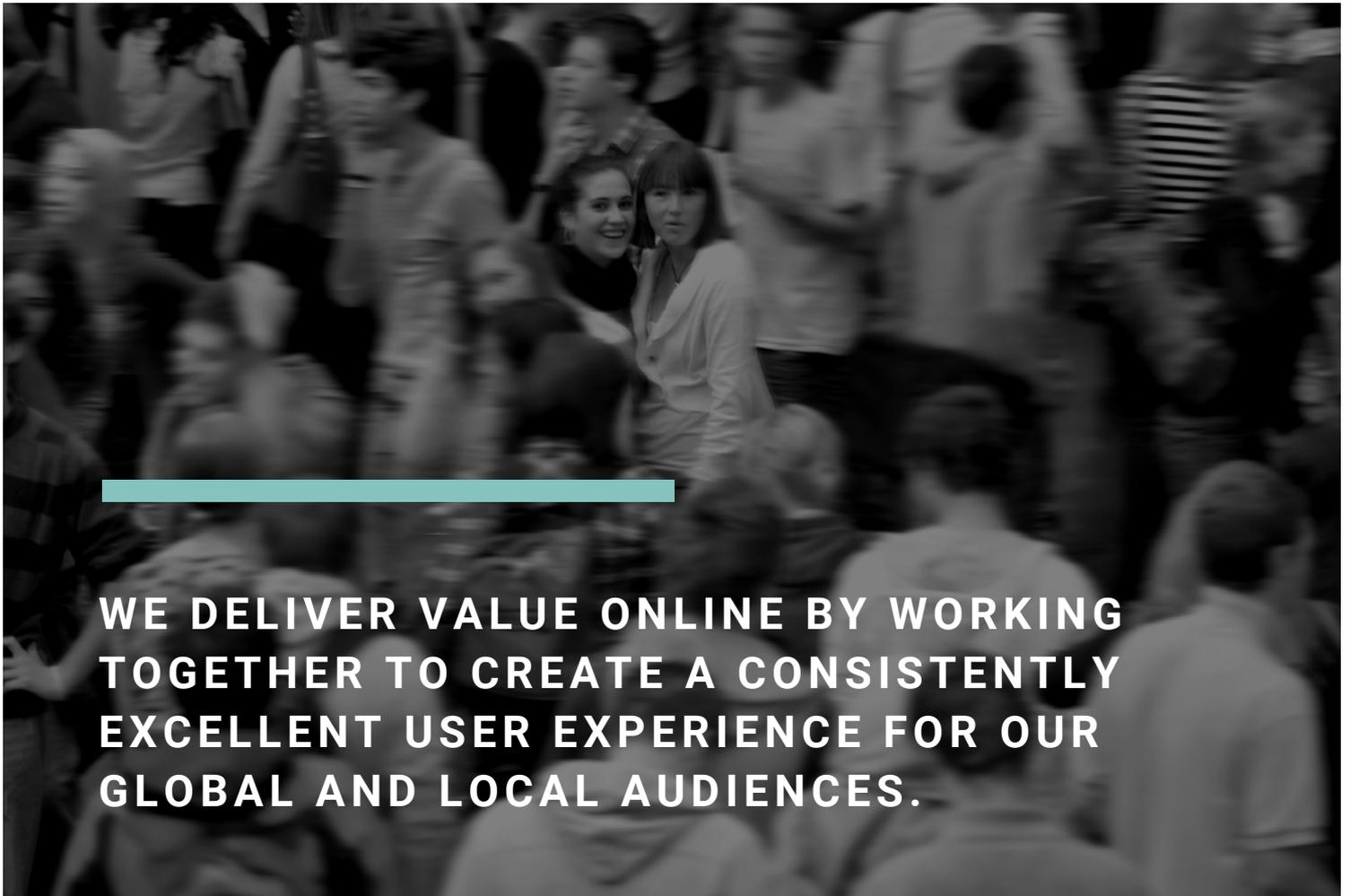


*Issues affecting the use of websites and online channels*

The operational needs of local business units can sometimes conflict with the perceived priorities of corporate services. For example, the need to standardise processes is seen to negate the empowerment of local units and the perceived need for central control is seen to stifle innovation.

While there is a pronounced need to enhance, align and articulate centrally-provisioned web services, this strategy and the accompanying web governance model also seeks to build a framework that enables business units to adopt technologies, standards, tools and measurement as appropriate to engage users and achieve goals. To be successful, impetus is required at a senior level throughout the University, and the concurrent delivery of the governance model will support this.

# Vision



Our vision echoes the University ambition to deliver impact and recognises the need to deliver consistent user experiences across our online offering. It puts collaboration at the heart of our strategy, emphasising the need for joint working and common approaches to satisfy user needs and achieve business goals. It allows us the freedom to adopt new and emerging online channels and technologies, expanding our engagement points beyond websites.

**By achieving this vision, we will:**

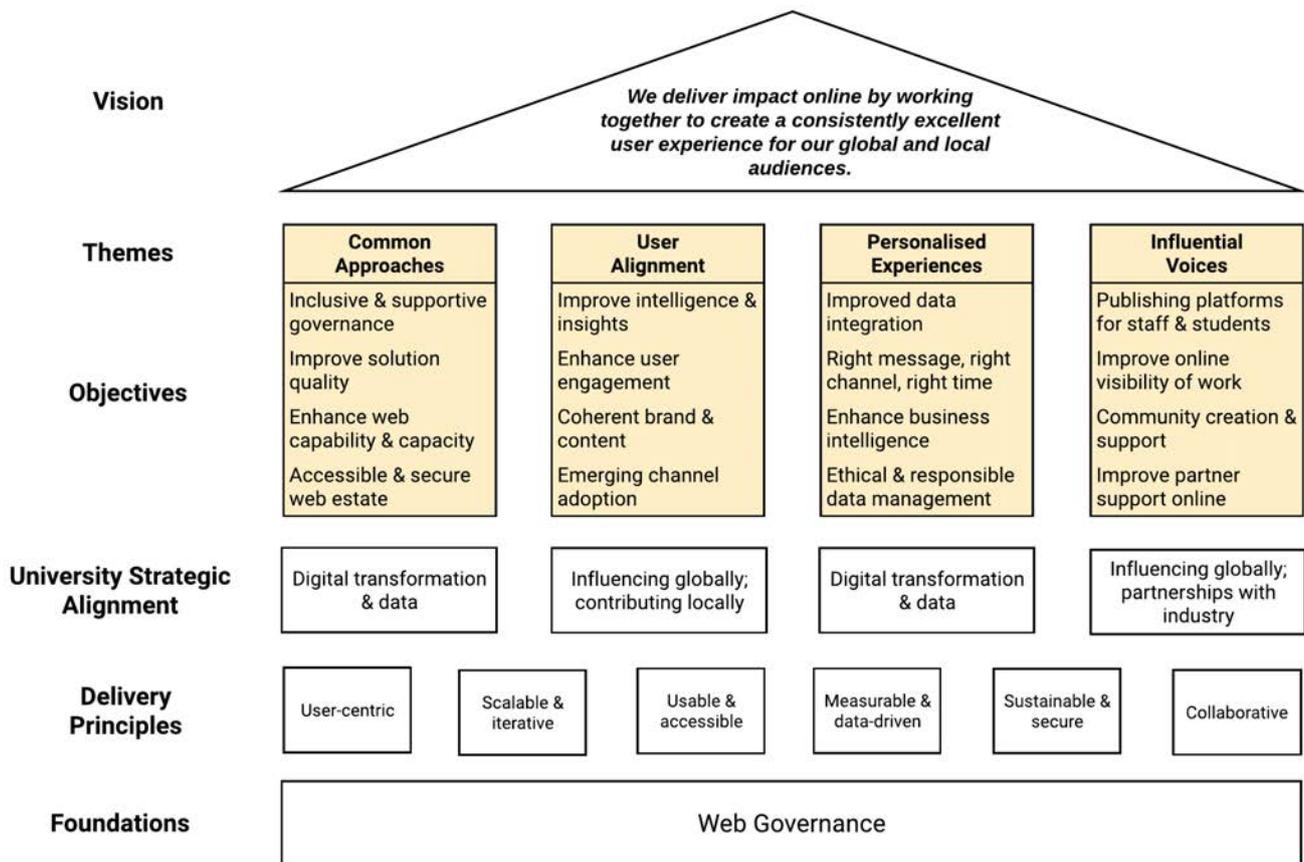
- Offer users a coherent online experience
- Engage efficiently with our audiences and increase conversion
- Improve the overall content and solution quality of our web estate
- Increase the online visibility of our content
- Reduce the reputational, legislative and financial risk around our web estate
- Embrace new channels and technologies to engage users
- Increase re-use of technologies and reduce associated costs
- Work more effectively with partner organisations online

This vision is underwritten by a series of strategic themes, objectives and activities which will help the University to achieve it.

# Themes

Strategic themes are the pillars that support the vision and set broad strategic boundaries for delivery. They are defined by the outcomes that we hope to achieve rather than addressing the needs of a specific business unit. For example, delivering ‘personalised experiences’ online will increase the quality of our engagement across the institution and help to increase the online conversion of student recruitment campaigns.

Each of the strategic themes has associated objectives, activities proposed to achieve the objectives and the potential benefits for the University. The themes complement each other and interdependencies have been identified to ensure the activities will be delivered in concert.



*Web strategy themes support the delivery of the vision*

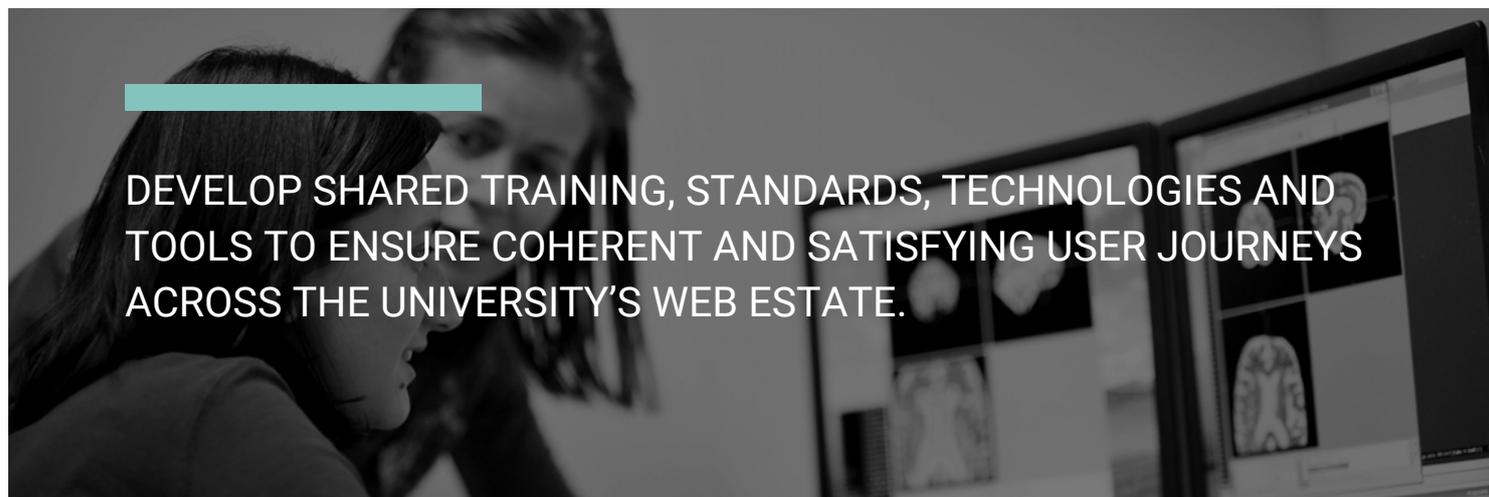
## Creating Momentum

The proposed strategic activities create impetus by ensuring there is collaborative, outcome-driven activity from the point at which the strategy is released. In some cases, this is achieved by taking projects that are currently in development (work in progress) and engaging with stakeholders to align the activity with the web strategy.

Each of the themes has a pilot or work in progress project that will act as a ‘proof of concept’. This will be conducted in the early stages of strategy delivery, and lessons learned will inform the evolution and iteration of the web strategy.

Work in progress and pilots will also inform planned activities for future financial years and the development of business cases for strategic projects. For each theme an activity has been highlighted which demonstrates the approach.

# Common Approaches



DEVELOP SHARED TRAINING, STANDARDS, TECHNOLOGIES AND TOOLS TO ENSURE COHERENT AND SATISFYING USER JOURNEYS ACROSS THE UNIVERSITY'S WEB ESTATE.

## High-level objectives

- Improve the quality of our web estate and online channels through the adoption of an inclusive and supportive governance model
- Enhance the accessibility and security of our web estate by establishing and evolving University-wide standards
- Enhance solution and content quality by improving the digital skills of web publishers and practitioners; establishing a common understanding of web roles and capabilities; and delivering web publishing and management tools

## What are the benefits?

- Improved user experience across the University's websites
- Better cooperative working practices and sharing of knowledge
- Reduction of reputation, legislative and financial risk around the University web estate
- Improved content quality across the web estate
- Improved information security and reduction of vulnerability
- Increase re-use of web technologies and reduce associated costs

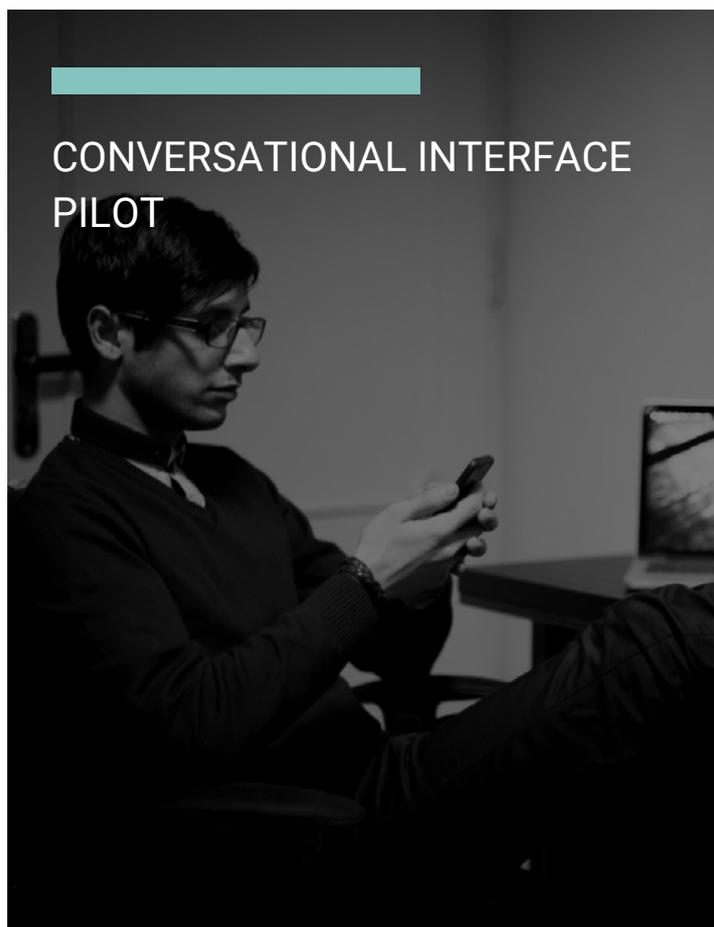
## How will it be achieved?

- Launch of Web Governance and development of Technical Design and Business Leadership Teams; investment in Communities of Practice
- Establishment of governance processes and standards; performance and compliance tracking with recommendations to improve, migrate or decommission websites as appropriate
- Adoption of common approaches to the development and management of websites, including guidance on internal web services and a web development procurement framework
- Development and launch of the Student Digital Experience Standards & investment in the EdGel design framework
- Commitment to regular web estate auditing, website register and analysis
- Tools and skills assessment to understand web practitioner need and interrogate solutions

## Activity Roadmap

Project type	Project name	2017-18	2018-19	2019-20	2020-21
WiP	Web Governance	Plan & Launch	Embed & Enhance	Operate	
Pilot	Conversational Interface Standards	Pilot & Release			
Pilot	Digital Experience Standards	Pilot	Enhance & Release	Operate	
Planned	Web Dev. Guidance & Procurement Framework	Investigate	Release		
Bid	Web Publishing Tools	Survey	Procure & Execute	Operate	

## Highlighted Project



The emergence of conversational interface devices, such as Amazon Alexa and Google Home, over the past year has been dramatic. Google forecasts that 50% of searches will be driven by conversational interfaces by 2020.

Given this, there is an opportunity to use this technology to engage with audiences. Like any new technology, best practices, technical standards and use cases are not well known.

This ISG Innovation project seeks to address those issues and develop a toolkit for web practitioners to utilise. The project will culminate with a facilitated code sprint for developers from across the University to produce an innovative conversational interface product that can be iterated or scaled where appropriate.

A forerunner for regular collaborative innovation projects, this will give the University a strong baseline for the use of an emerging technology, increase digital skills and give future products a better chance of success.

# User Alignment



DEVELOP A DEEPER UNDERSTANDING OF EVOLVING USER BEHAVIOUR AND USE APPROPRIATE EXISTING AND EMERGING ONLINE CHANNELS TO ATTRACT, ENGAGE AND CONVERT OUR TARGET AUDIENCES.

## High-level objectives

- We will make well-informed decisions on the use of websites and online channels with the use of audience intelligence and insights
- Using the channels our audience expect us to use, we will be where they want us to be
- We will offer a coherent brand and content offering online, utilising websites and online channels as a complementary offering
- We will investigate and use new channels to enhance user engagement

## What are the benefits?

- Improved conversion of user journeys to University goals
- Increased online channel Return on Investment for campaigns
- More efficient resolution of user enquiries
- Better informed web and online channel activity through the use of an evolving knowledge base
- A better, more coherent representation of the University of Edinburgh brand
- Appropriate adoption of new and emerging online channels

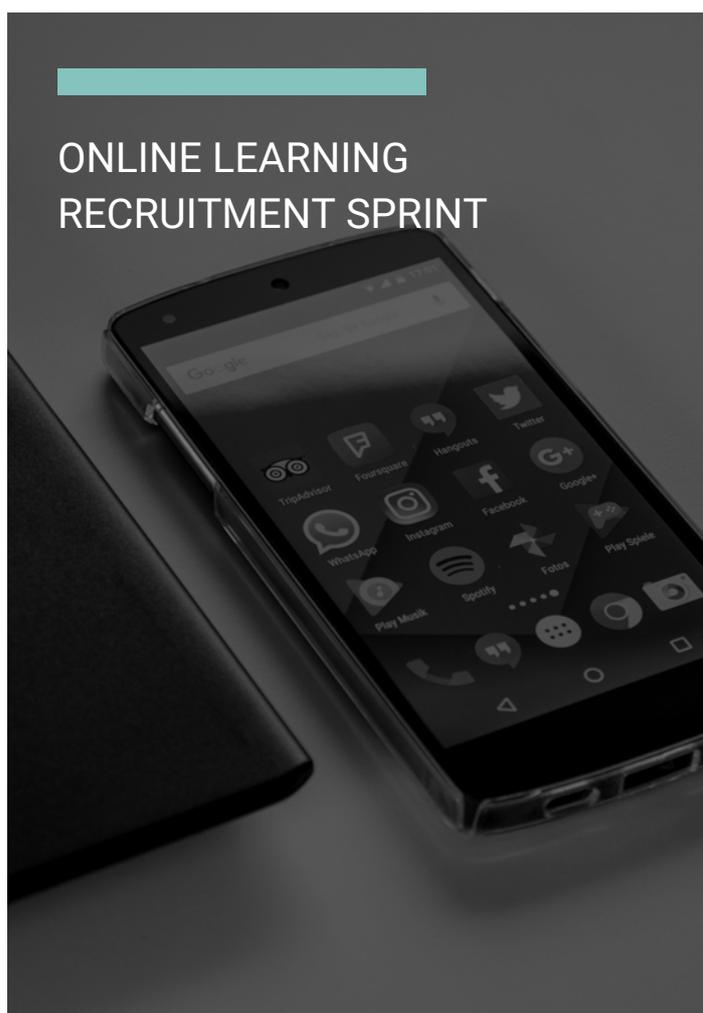
## How will it be achieved?

- Content and channels audit to establish baseline presence and quality, allied to the development of content strategy
- Development of insights and user experience resources and standards
- Adoption of online channel management tools which can be re-used by business units for audience engagement
- Bespoke training packages and skills development allied to new tools
- University Website Drupal 8 migration and investment in channel integration

## Activity Roadmap

Project type	Project name	2017-18	2018-19	2019-20	2020-21
WiP	Insights and User Research Resource	Plan	Release	Operate	
Pilot	Online Learning Recruitment	Pilot			
Pilot	Staff Comms User Journeys	Pilot			
Planned	Tools Delivery & Training	Survey	Procure & Release Phase 1	Release Phase 2	Operate
Bid	Content & Channels Audit	Plan	Procure & Execute	Operate	

## Highlighted Project



Online Learning is a key focus for the University, with the potential to reach new international audiences and ambitious growth targets to match. There are significant student recruitment challenges in this area, with a need to acutely understand points of user acquisition across online channels and drive conversion through the University Website.

This collaborative six-week sprint will involve staff from across the University, including an online programme, Service Excellence and Learning, Teaching and Web division.

It will test routes to market, seek to improve user experience on the University Website and understand the capability and capacity gap to execute similar improvements on a larger scale.

The output will be a Minimum Viable Product (MVP) for online learning on the University Website developed using the EdWeb Content Management System.

The intention is that this MVP can be scaled and, more importantly, the sprint will test the ability of teams to work collaboratively and efficiently in an agile format.

# Personalised Experiences



## High-level objectives

- We will add value to users and the University through interoperability and integration of web interfaces with appropriate data sources and platforms
- We will increase corporate knowledge of audiences through the use of enterprise analytics and management information tools
- We will collect and aggregate data ethically and responsibly

## What are the benefits?

- Users are served better and more relevant content, matching their needs
- The University will communicate more efficiently and effectively with core user groups
- Enhanced business intelligence will allow the University to make data-driven decisions
- Improved corporate knowledge informing the University's user research and insights resource
- Enhanced user trust and corporate credibility by being transparent about our use of data and the associated benefits for the user

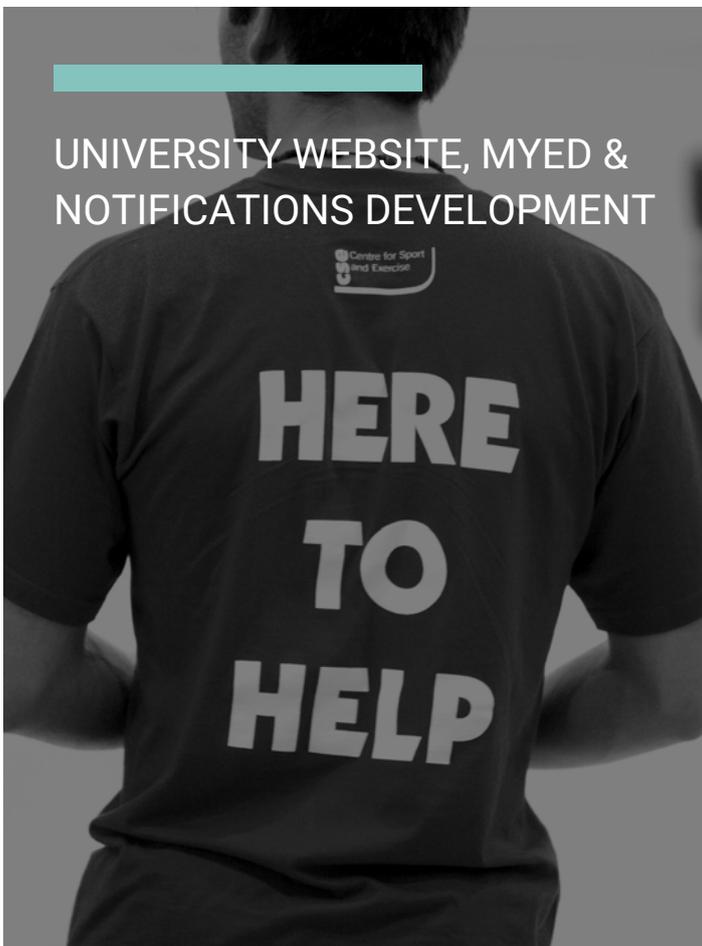
## How will it be achieved?

- Implementation of an enterprise web analytics platform with the ability for local configuration
- Integration of the analytics platform across our web estate and online channels where possible
- Integration and alignment between the User-Centred Portal, Notifications and EdWeb Drupal 8 migration programmes
- Alignment, support and integration with Relationship Management initiatives and platform

## Activity Roadmap

Project type	Project name	2017-18	2018-19	2019-20	2020-21
WiP	Student Recruitment Enquiry Management	Plan	Integrate	Operate	
Pilot	Web Analytics	Discovery & Alpha			
Planned	University Website, MyEd & Notifications	Notifications Pilot	Notifications & MyEd uPortal 5 Release	University Website Drupal 8 Release	Integrate & Operate
Bid	Enterprise web analytics		Plan & Procure	Integrate	Operate

## Highlighted Projects



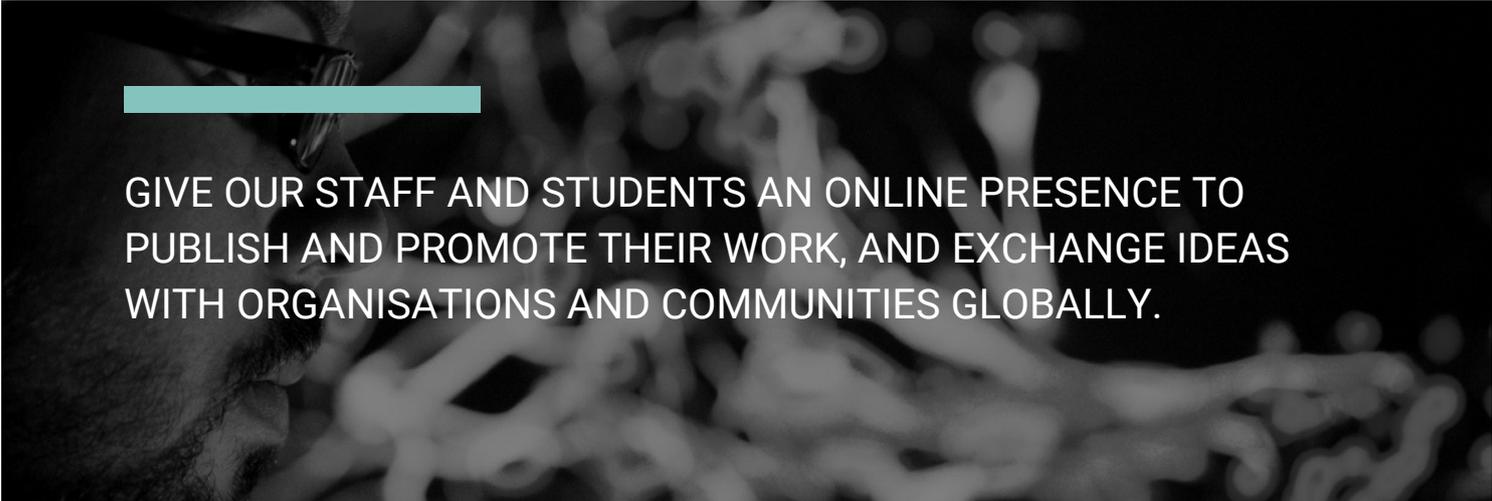
The personalisation of web and digital communication has become ubiquitous in many sectors, but the relatively sluggish uptake of these technologies in the Higher Education sector offers the University a unique opportunity.

The development of the MyEd portal and the Notifications Backbone as part of the University's Digital Transformation programme, allied to the transition of the University Website to the Drupal 8 Content Management System, can form an enduring platform to offer personalised experiences to multiple audiences.

This trio of products is at a suitable stage of interrogation or development where interoperation can be efficiently factored into development. There is an opportunity to collect data through a trusted portal and use this to improve user experience with meaningful interest-driven content and automated communication.

The outcome will be transformational for the user and the University, adding value to website engagements.

# Influential Voices



GIVE OUR STAFF AND STUDENTS AN ONLINE PRESENCE TO PUBLISH AND PROMOTE THEIR WORK, AND EXCHANGE IDEAS WITH ORGANISATIONS AND COMMUNITIES GLOBALLY.

## High-level objectives

- We will increase the online visibility of our best content by giving staff and students managed platforms to publish their work online and a framework for syndication and sharing
- We will help staff and students to make informed decisions and use appropriate channels
- We will improve the support for partnership working through central websites and online channels

## What are the benefits?

- Increased online visibility for the work of staff, students and, ultimately, the University
- Improved profile and visibility for the University across search and online channels
- Well-trained staff and students who effectively and safely manage their online identity
- Improved cooperative working online with partners from the commercial, third and public sectors
- Enhanced partnership syndication of University content

## How will it be achieved?

- Development and launch of an academic blogging platform and Domain of One's Own
- Investigation into the development and deployment of a centrally-managed website publishing platform
- Development of policies, processes and quality control mechanisms to support staff and student publishing
- Development of content syndication and sharing tools
- Creation of training materials and investment in associated communities of practice

## Activity Roadmap

Project type	Project name	2017-18	2018-19	2019-20	2020-21
Pilot/ WiP	Academic Blogging	Pilot	Release & Operate		
WiP	Policies & Process	Align to Blogging	Develop	Iterate	
Bid	Website Publishing Platform		Plan	Procure	Develop & Release
Bid	Content Syndication Tools		Plan	Procure & Release	Operate

## Highlighted Project



The University’s Corporate Plan has a clearly stated aim to allow students to, “exchange ideas, share their values and shape the world they live in.” The development of an academic blogging platform speaks directly to this strategic objective.

The new Academic Blogging Service will deliver a consistent, efficiently managed and supported central service built on the open source WordPress software. There will be opportunities to have a customised or do-it-yourself blog with supporting resources.

Uniquely, users will be able to keep, migrate or delete their blog when they leave the University, which helps to relieve concerns around content portability.

By providing a centrally managed service, the University will see a reduction in blogs being generated with no legacy plan or business owner – a key finding of the web estate audit.

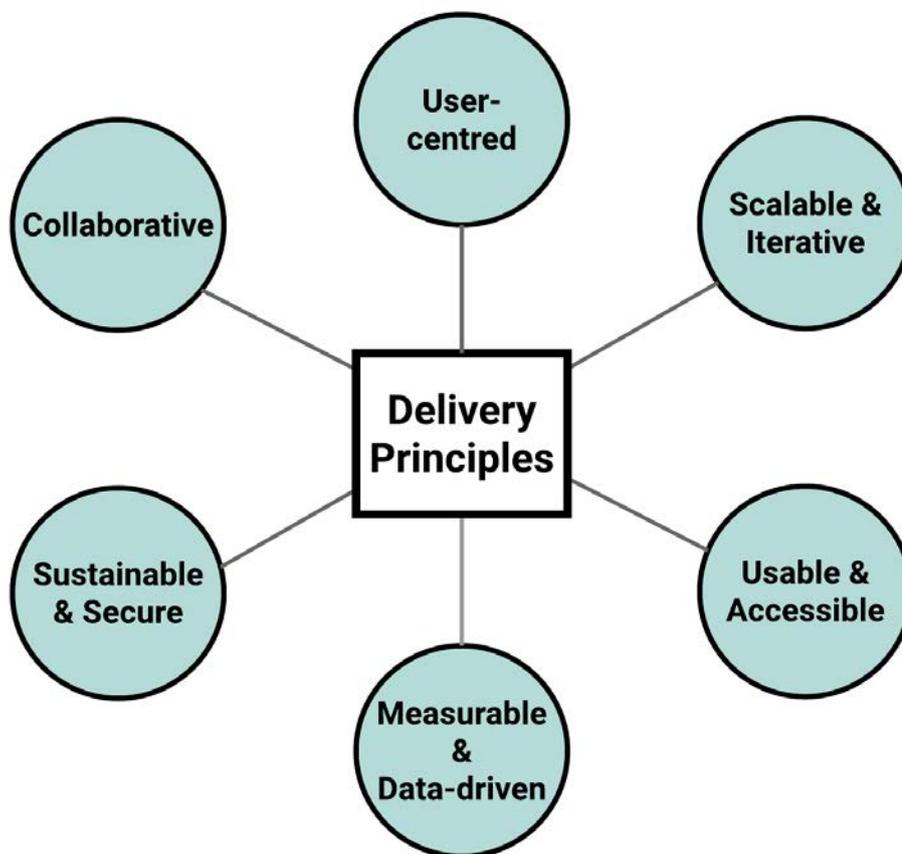
The outputs of this project will also directly inform the investigation into a wider website publishing platform for the University.

# Delivery Principles

Principles will guide the delivery of the web strategy and ensure that the strategic activities will be coherent, consistent and coordinated.

The high level of interdependency across the strategic themes and activities demands that the principles are applied in so far as is practicable. For example, if we fail to work **collaboratively** on tools and technologies that will be re-used locally, there will be a lack of commitment and uptake from business units.

While no single principle is pre-eminent, the commitment to being **user-centred** is paramount to the successful delivery of the strategy. When developing websites and using online channels, every effort must be made to research and understand user needs to ensure that this drives the development and delivery of solutions in an appropriate way.



*The principles by which the web strategy will be delivered*

The principles help bring change to working practice and culture. A commitment to **iterative** development ensures features can be added and things that don't work will be removed. In the case that a prototype isn't working, it can be ended with minimal negative impact on business operations.

The principles also address functional and operational issues. For example, the strategy does not have an activity exclusively addressing information security but if technologies adhere to the **sustainable and robust** principle, they will meet the University's information security standards and policies.

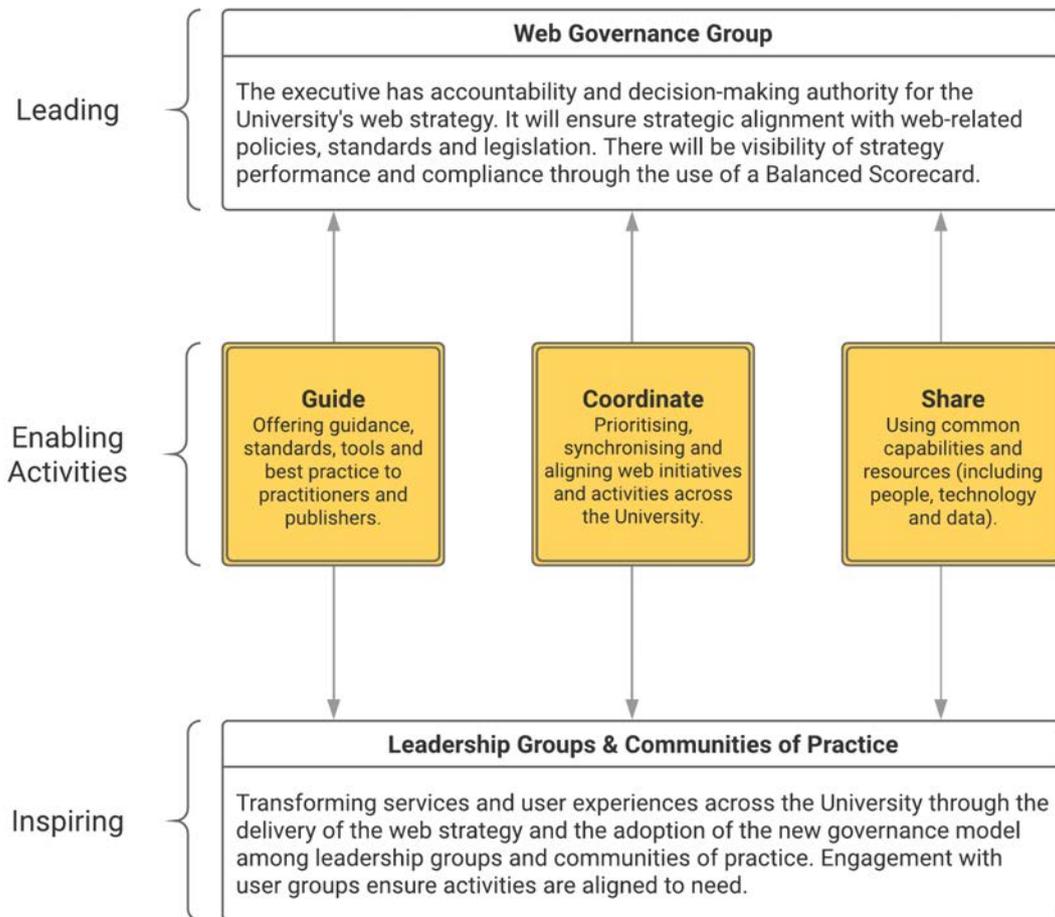
Equally, the principles guide how the programme of activities is governed and will be an important feature of the University's web governance. The principles will be reviewed as the delivery of the strategy progresses and, where necessary, amended.

# Collaboration in Delivery

The web strategy depends upon a collaborative approach for successful delivery. From inception, this strategy has sought to be inclusive and give consideration to the diverse needs of the University. The core elements of the strategy have been produced by a team from across Schools, Colleges and Support Groups, the proposals have subsequently been tested and iterated in wider consultation.

A key concern in the delivery of the strategy is the capacity and capability of teams both centrally and locally. Collaboration will be critical to understand the potential delivery issues this may cause. Equally, an assessment of ISG Web Services has taken place to better understand existing capacity and capability, and articulate the change to these services that will be required to underwrite the delivery of the web strategy. The recommendations of this assessment are under consideration and will be actioned in alignment with the launch of the web strategy.

To realise the benefits of this work, it is critical that web publishers and practitioners are activated, empowered and energised to collaborate on the delivery of relevant strategic activities. Centrally-provided services must embrace the knowledge and utilise the talent of these groups. If this approach is taken, end users will realise the benefits.



*Strategy delivery and governance framework*

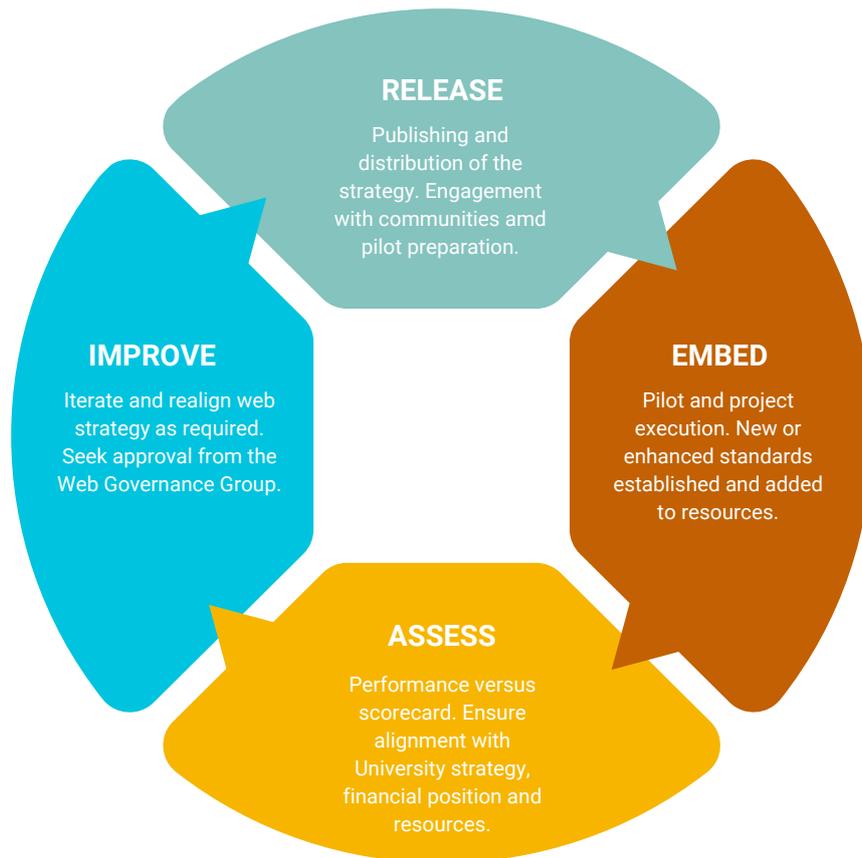
The web governance model, which has been approved by the Information Technology Committee, will provide the framework for this approach. As detailed below, it has a formally recognised executive body that holds overall accountability for the delivery of the strategy.

The Leadership Groups and Communities of Practice are equally critical to the delivery of the web strategy and continuous improvement of technologies, working methods and user engagement.

# Measuring Success

Key Performance Indicators (KPIs) have been identified for each of the strategic themes, related to the objectives and associated benefits. These will form the basis of a Balanced Scorecard that will be published quarterly and a report will be issued to the Web Governance Group and Leadership Groups.

The Balanced Scorecard will track performance against the strategic themes and also contain measures based on the operational health of the web estate. These operational KPIs will be drawn from the Web Audit, solutions for which are currently being investigated. This will be a recurring activity from early 2018-19.



*Web strategy annual delivery cycle*

The strategy will also be subject to annual review by the Web Governance Group to ensure that it is in alignment with:

- University strategic direction
- Financial resources and plans
- Institutional capability and capacity

Per the principles, the strategy must be scalable and iterative to respond to the needs of the University and its audiences.

# Further Resources & Credits

## Further Resources

Additional resources are available on the Web Strategy Wiki including the following appendices:

- Organisational Scope
- Technology & Activity Scope
- Objectives, Benefits & KPIs
- Delivery Principles
- Activity Impact Matrix
- Strategy Resources
- Glossary

Please visit <http://edin.ac/2Fvg9uR> to find out more.

## Credits

The web strategy has been developed by a team representing Schools, Colleges and Support Groups from across the University, with a range of backgrounds and experience.

Details of the Web Strategy Development Team members, the strategy 'sprint', working method and other details can be seen on the Wiki - <http://edin.ac/2GI99hp>

## Contact

If you have further questions or enquiries about the Web Strategy, please contact:

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