

ITD Newsletter – March 2020

DIGITALEVOLUTION@UL

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Above: Members of ITD Team preparing a batch of Emergency Laptops for Remote Workforce on March 13th.

Digital Transformation or UL's 2020 Digital Salvation?

Frightening, anxious and sad times. Our world has been rocked. Life may never be the same, but we cling to the hope that normality might return. In this time of crisis, the UL community has proven itself to be resilient and strong. In the mid-west region, UL has been a leader in the response to this deadly virus.

In this the latest newsletter from the IT Division (ITD) in UL, we relay how our world in IT has changed in this recent rapid timeframe. With all of our many IT plans and projects, we would never claim that we planned for this scenario. However, many of our recent IT decisions, digital investments and digital project achievements have laid the groundwork for what we have been able to deliver to the campus community over the last month.

In January before we knew what Coronavirus was, a group of colleagues in ITD met and discussed how we needed to communicate more effectively with the campus community about how the various IT Changes and Projects were benefitting the institution. We recognised that we in ITD needed to do better in articulating and communicating the message of UL's Digital journey. The narrative of the story is very different right now from the draft communication that we had started to put together two months ago in mid-January!

During the last month there have been so many challenges. We have faced many problems and solved many of them. There will be many more challenges, IT and other issues in the weeks and months ahead as UL forges ahead with its Education ecosystem, underpinned now more than ever by its Digital Capabilities.

Our philosophy and approach in ITD will be to continue to find solutions and not problems, to partner with, not oppose, our academic colleagues and to continue to enable the reality that is now very much, a 'UL Digital Campus'. We wish to thank all of our colleagues across the UL community for their collegiality, support, feedback and patience during this period. We acknowledge that sometimes the service and the technology requires your patience. Our commitment to you is that we will continue to partner with you. We will find new ways to deliver the required outcomes to keep our staff and students operational in the face of the struggle against this awful virus.

I wish to thank all the staff in ITD for how they have responded in an extra ordinary fashion to what we have been dealing with the since the start of March. The entire team effort and team spirit has been something to behold. It has literally been all hands on deck at many stages and the response of the ITD team and partner organisations is something that I am very are proud to have been associated. @ITD Staff, Thank you!

I cannot conclude without mentioning our phenomenal medical workers in our hospitals and care facilities. I read at the weekend about frontline healthcare workers that cannot now hug their children when they come home from work due to infection risk. I cannot imagine what that must feel like. We in ITD salute our healthcare workers and thank them for what they are doing for the rest of the Irish citizens, including the UL Community. Our deepest condolences and thoughts also are with all those families who have already lost loved ones to this deadly disease.

Liam O'Reilly

Director Information Technology Division, University of Limerick.
#stayathome #healthcareheroes



The IT Landscape in UL - Pre-Coronavirus

Just over 2 years ago, the University of Limerick approved its first ever IT Strategy for the institution, 'UL Enable'.

In setting out that strategy a key objective for IT in UL was to align the IT Strategy with the University's mission and strategy for Teaching and Learning and Research. UL, like many other HE institutions is striving to achieve Digital Transformation, to become the truly Digital University.

The approval of the Strategy committed UL to a 10-fold increase in IT Capital Systems and projects annually (€6m over 3 years). Additionally the approval of the strategy committed UL to developing new IT capabilities within the Central IT function and achieving a culture change within the function (i.e. how the central IT Division engages with the campus and the commitment to strive for excellence in service delivery to the entire UL community.)

Below are some of the tangible outcomes that the aforementioned strategic investment in IT has enabled:

- A major investment in the UL core network infrastructure and backbone
- Major enhancements to the IT Security posture and IT security maturity of the organisation
- The adoption and accelerated migration to new cloud technologies
- Embracing a culture of 'Can do, will do' within the IT Division
- A Truly Digital Trajectory - Digital Evolution, Digital Acceleration and Digital Transformation @UL
- Establishing a BI Competency Centre to mature the Business Intelligence Systems
- Upgrades to all key Enterprise Systems including those used in Teaching and Learning, Research and Collaboration.
- An overhaul of UL's approach to planning, testing and quality assuring its Disaster Recovery capabilities.
- An Improvement Program focused on improving the Digital Literacy of the Campus
- A focus on IT Vendor Management, developing deeper partnerships with the Supply network and many IT Services Providers in UL's Digital Ecosystem.
- The creation of a Project Management and Business Engagement team to engage with Divisions in their Digital Transformation journey and to implement projects

Shift in Approach and Philosophy

Old		New
• Inward Looking		• Engagement & Outreach
• Service Provider		• Service Broker
• Tactical Focus		• Strategic Focus
• One-Size/Speed Fits All		• Greater agility
• Technically Focused		• Service-Focused
• Reactive		• Proactive (Partnership)
• On-site		• Cloud & Mgd Services
• Services 9am – 6pm		• Services 24 x 7

Above Extract from IT Strategy UL Enable, depicting ITDs Approach

UL's IT Strategy stated that "digital disruption increasingly pervades education and business, where IT is almost as critical to the institution as light, heat and running water." Never more so than in during the last few weeks since the onset of Covid-19 has this statement become tangibly evident.

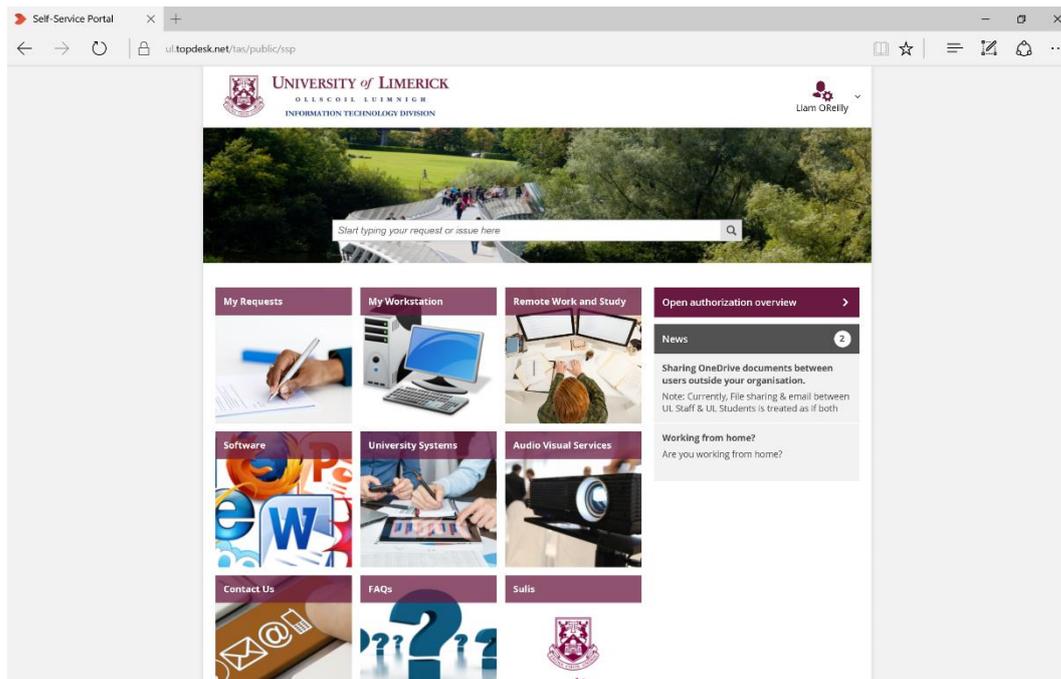
Coronavirus and Crisis Management in UL

Little did we think or know when developing our IT strategy that a little over two years after its approval, the University would be faced with the greatest change UL has faced since the foundation of the institution in 1972 – a global pandemic, Covid-19.

From early February 2020, UL's Crisis Management team started to meet regularly to discuss the evolving situation in China with respect to the Coronavirus outbreak. By late February, as events unfolded in Italy planning focused on the potential for invoking what UL would do in the event of a Coronavirus outbreak. By March 4th, confirmed cases of Covid-19 were confirmed in County Clare, and on the morning of March 5th UL's Crisis and Executive Committee were in detailed planning for a potential campus closure. It was agreed from the outset, that in the best interests of the 16500 students and staff that UL would go online and continue the semester online leveraging the technologies at the disposal of the staff and students.

Preparations for moving online that had begun in late February, now moved into the detailed implementation phase. The technologies were all in place to enable the concept to become a reality. Much of the challenge was to quickly develop more detailed materials for the staff and students on how they could be enabled to deliver. The following key actions were implemented:

- An IT Services Continuity Plan was developed and Published to the Campus
- An emergency consignment of 100 contingency laptops was approved and ordered centrally by ITD to enable critical staff without devices to be enabled to work remotely. An extraordinary short lead time was achieved leveraging the partner model created by our Vendor management model.
- An IT Service Catalogue Summary was published re ongoing planned service availability
- IT Workloads were re-prioritised in order to ensure a continuity of critical services in when physical campus would close
- ITD's TopDesk Portal was chosen as the Secure Platform for the UL Community to be enabled from (i.e. TopDesk (<https://ul.topdesk.net>)
- A remote working suite of tools and guides was developed and loaded onto the TopDesk 'remote working' tile on the portal for UL staff and a 'remote study' tile for students.
- The ITD Ed Tech team lead an initiative to partner with and collate input from the Faculty Ed Techs. The TopDesk portal became the one stop shop for guidance in Teaching and Learning online for all the tools in use in UL, including Sulis and Moodle.
- The ITD Service Delivery team coordinated support for Faculty Technicians about the plan support and tools available and recommended to both technically mobilise and support a remote workforce.
- The Ed Tech team in partnership with the CTL, the Ed Technologists forum and other Digital Adoption Leaders in collaborated to run online webinars and meetings to enable the community to adapt and adopt.
- Extra computing capacity was commissioned for key platforms, such as Sulis (UL's Virtual Learning Environment) and Big Blue Button (UL's Virtual Classroom Software Service)



Above a screenshot of ITD TopDesk Self Service Portal, the Digital Hub and Repository for UL Staff and Students in the Transition to Online Teaching and Learning and Remote Working

At 11am on March 12th, as the Coronavirus epidemic had rapidly evolved to become a Global Pandemic, the Taoiseach announced from Washington DC that all Universities were to close from 6pm that evening. On Friday March 13th and ITD emergency team received the delivery of 100 laptops which were received and configured in a 'production' line style setup and dispatched to staff users who required them.

UL Goes Fully online

On Monday March 16th (start of week 8 of semester) although the UL campus was physically closed, it was fully open in a virtual online way for it 16500 students, more than 1800 staff and another 1000+ affiliates, partners and contractors who are end users of UL's IT Systems. The planning from the previous weeks moved into execution mode to deliver to the remote campus.

3 weeks on, UL is alive – Online. The semester continues for our students. Programmes continue, online. The Sulis activity has significantly ramped up. The content has significantly scaled up and the student usage has reached peaks never previously seen. Academics are being supported on modes of online delivery for their modules ranging from asynchronous to fully online and synchronous methods. UL's Education continues but in a very new mode of delivery in a very different world.

The usage in Our Digital Classroom and Collaboration technologies such as Big Blue Button and Skype for Business has also skyrocketed in terms of use. These scaled up systems have held up to the unprecedented load conditions.

UL's non-academic divisions across areas like Human Resources, Finance and Academic Registry have been supported to setup to work from home. These divisions and others like them in UL are delivering their work from home using the technologies and collaboration tools. Month end, Quarter ends, and semester end processing has been enabled and these functions plan now to complete the semester in a remote working model.

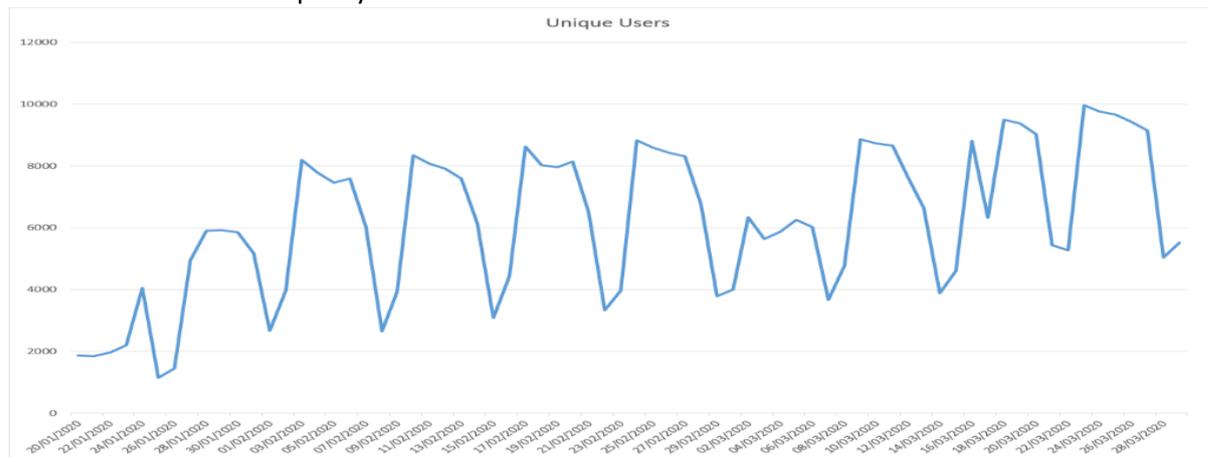
Some Data about UL's new Online Reality, in the 3rd week of UL Online

So here some data nuggets from the first few weeks of UL Online

1. Sulis (UL Learning Management System)

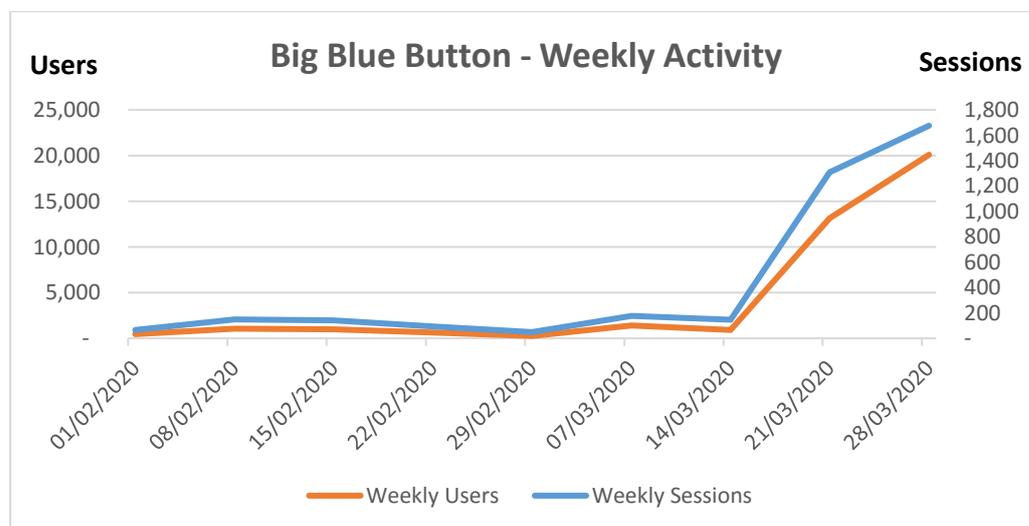
Sulis is UL's Virtual Learning Environment and is heavily used by students and lecturers to support their learning and teaching. Typically, during semester 2, there are around 8000 unique logins to Sulis daily. In the week ending March 29th, we witnessed 9961 logins. There has been a significant increase in the content being added to Sulis, this rose to a daily average of 8Gb per day last week and is now at 10Gb per day.

Sulis has 6 front end hosts now to cater for 3000 unique logins per hour. This is being actively monitored with more capacity available within 24 hours notice.



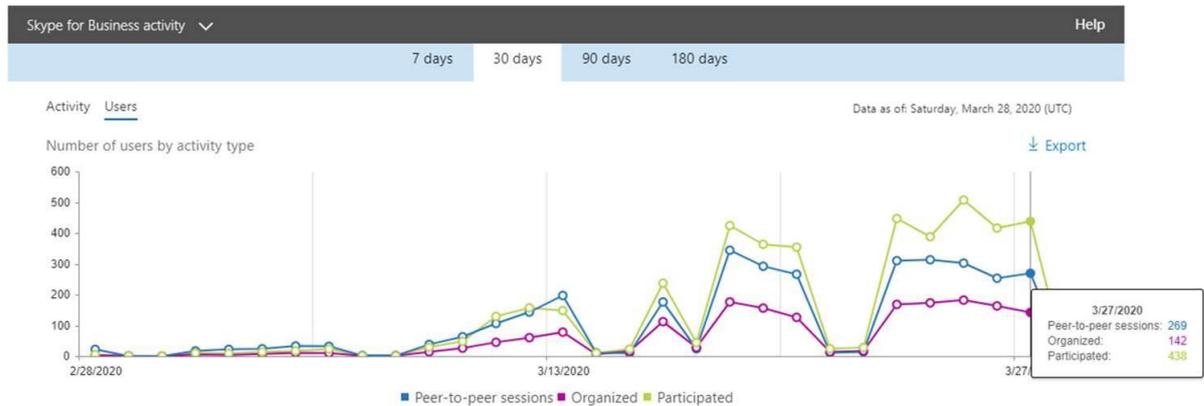
2. BigBlueButton (UL Digital Classroom System)

BigBlueButton is UL's Virtual Classroom and is available by default in Sulis and Moodle. It facilitates real time interaction using audio, video, live presentation and chat between lecturers and students. There has been a significant increase in the usage of this technology since the campus closed. Before March 12th, the highest weekly number of users was 1689. This number has increased to 20,093 users. Typically, during semester, there are around 200 online sessions per week in BigBlueButton, this rose to 1,676 in the week ending March 22nd.



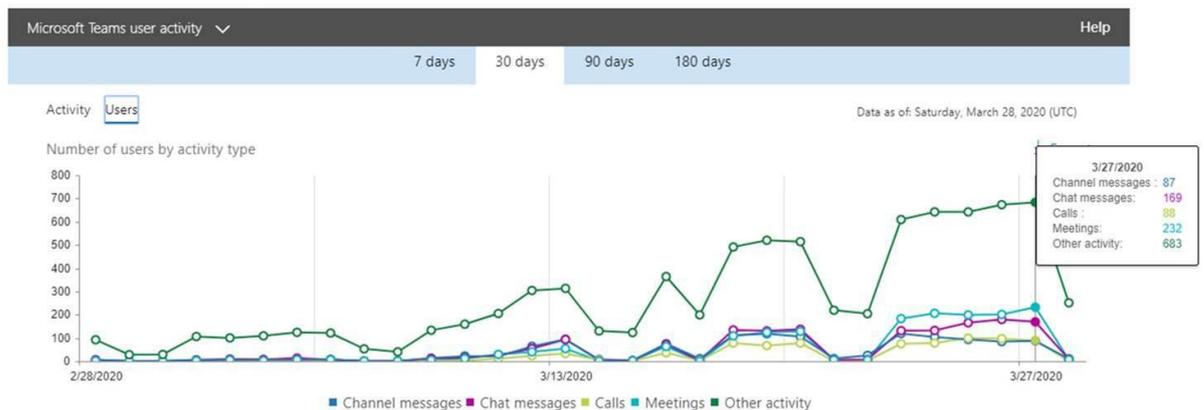
3. Skype for Business Activity to March 27th (UL is using Microsoft's Skype for Business System for online meetings, chat and online collaboration)

Skype for Business has been used for both staff meetings and collaboration and also within the academic environment for collaboration between students and academics.



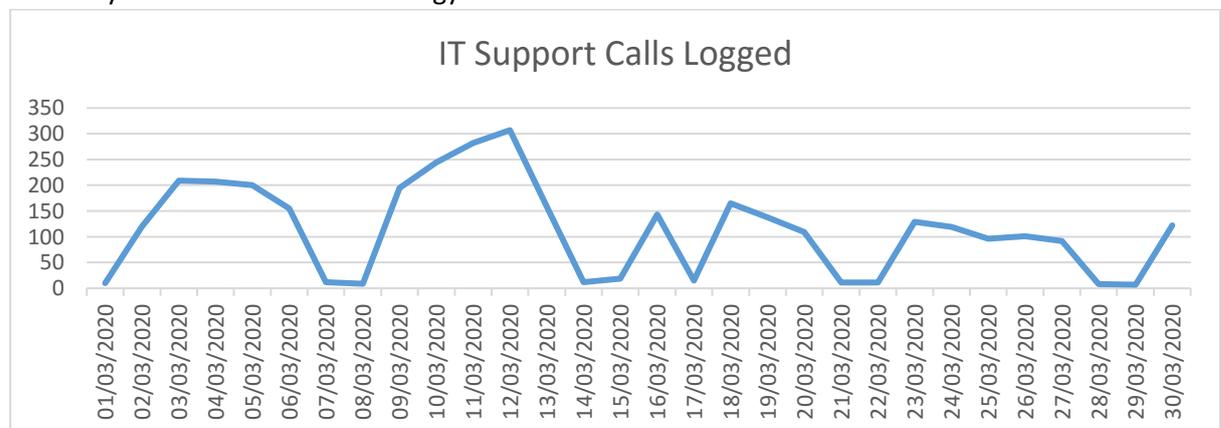
4. Microsoft Teams Activity

Similar to Skype for Business, ITD have facilitated the use of Microsoft Teams and it has been used for staff meetings and collaboration between staff and students.



5. IT Support Call Volumes

Topdesk is the IT Support Ticketing System in UL used to manage calls volumes and IT Service Levels by the Information Technology Division.



ITD have dealt with over 1300 IT Support tickets from staff in the first 2 weeks of 'online' operations.

6. Key Enterprise IT Administration Systems for Student Records, HR and Finance

Our key enterprise systems for HR and Human Capital Management (Core Portal), Finance (Agresso) and Student Records Management (SITS Tribal) have remained fully operational and key admin staff that administer these systems have been enabled and support for remote working to run their business processes, execute key data transactions and generate the operational reports that ensures the institution can operate and ben managed appropriately during this unique period in the institutions history.

7. Network Services

On a daily basis, we are seeing an average of 2,500 staff network accounts access the network, with a total of over 3,100 unique users access the network on a weekly basis.

For IT security reasons some users must connect to the UL network via SSL-VPN (FortiClient) in order to access some key enterprise back office systems. We have seen significant increased usage in this service with over 700 unique users connecting via SSL-VPN every day:

