accenture

BRIDGING THE GAP

Ireland's Digital Divide

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A PATH TO INCLUSION AND OPPORTUNITY

The Digital Divide is best summarised as the gap between 'the haves and have-nots' in an increasingly technologically driven society. Accenture's report, shows that the gap is still wide in Ireland where a two-speed digital economy risks leaving large groups of people behind.

Like every developed nation, Ireland is going through a process of disruptive technological change. Whilst this change brings welcome investment and opportunity it also highlights the gap between the digitally engaged and the rest of the population.

Leading technology giants have located their European headquarters in Dublin, following earlier waves of investment that encouraged the top five global software companies to set up in Ireland. This is the fast lane in the two-speed digital economy, spawning indigenous tech start-ups and creating career opportunities for well-educated graduates. It is a high-tech community that has capitalised on the rapid advances in computing power, connectivity and digital transformation.

This digitally connected community is ahead of the curve and well positioned to catch the next wave of change. The World Economic Forum calls this the 'Fourth Industrial Revolution' and it is driven by AI (Artificial Intelligence), data analytics and the internet of things. However, there is a risk that this will widen rather than narrow the digital divide.

At least 25 percent of the Irish population is excluded from an increasingly digital society because of socio-economic reasons. The 'digitally disengaged' risk further isolation as communication and social interaction continue to move online. Government services, internet banking, and online shopping have been welcomed by many - but people with low digital skills are alienated and left behind.

Accenture's research among the Irish population delves into this issue more deeply. When we asked Irish citizens to self-reflect on their own level of digital competency, we found that 42 percent of Irish people describe themselves as being 'below average' for digital skills. This highlights a gap in digital literacy that exists within the country.

" The building blocks for a digitally literate society are already in place. Ireland excels when it comes to innovation and technology and has a reputation as a progressive European hub. Now there is an opportunity for Ireland to maximise our potential by taking a leadership position on digital literacy, empowering citizens with hard digital skills that focuses on higher level cognition and critical thinking.

If stakeholders come together to tackle the divide, digital skills could become an equaliser in Ireland, empowering the disadvantaged with skills that will make them more active participants in society. There has never been a more important time to increase our national digital skills levels. By focusing on this for all parts of society, we can contribute significantly towards tackling societal challenges, such as loneliness and inequality, and help create more opportunities for our citizens."

Vicky Godolphin,
Managing Director and Digital Divide Sponsor,
Accenture in Ireland

Characteristics of the 'digitally disenfranchised'

Despite being one of the most advanced economies in the world, in the EU Commission's annual Digital Economy and Society Index in 2020, Ireland ranked 18th of the 28 EU states for the percentage of individuals with at least basic digital skills. This reflects the digitally disenfranchised parts of the Irish population where a lack of direct exposure to technology, or the educational opportunities to understand it, exacerbate existing social inequalities and further isolate already marginalised communities.

Our research found that age, social class, region and level of education is closely correlated with levels of digital skills.

Only 25 percent of our respondents rated themselves as having 'excellent' digital skills. Of the respondents who finished their education at Leaving Cert, 55 percent said they had 'average' or 'below average' digital skills.

1 in 5

18-34-year olds describe their digital skills as 'average' or below

Analysis by demographic classification is also revealing. Only 28 percent of ABC1s (lower to upper middle class) described themselves as having 'average' or 'below average' digital skills, a figure that rose to 50 percent amongst C2DEs (skilled and non-skilled working class). Most of these citizens are from a demographic that will be more vulnerable as AI-powered automation impacts jobs and new-skilling becomes increasingly important.

Our research challenges the common misconceptions that this is an issue purely for an 'old and out of touch' generation. One in five of 18-34-year olds, who could be characterised as 'digital natives', describe their digital skills as 'average' or below.

Of the 26 percent of respondents who said they had never shopped online, almost a third are under 55 years of age.
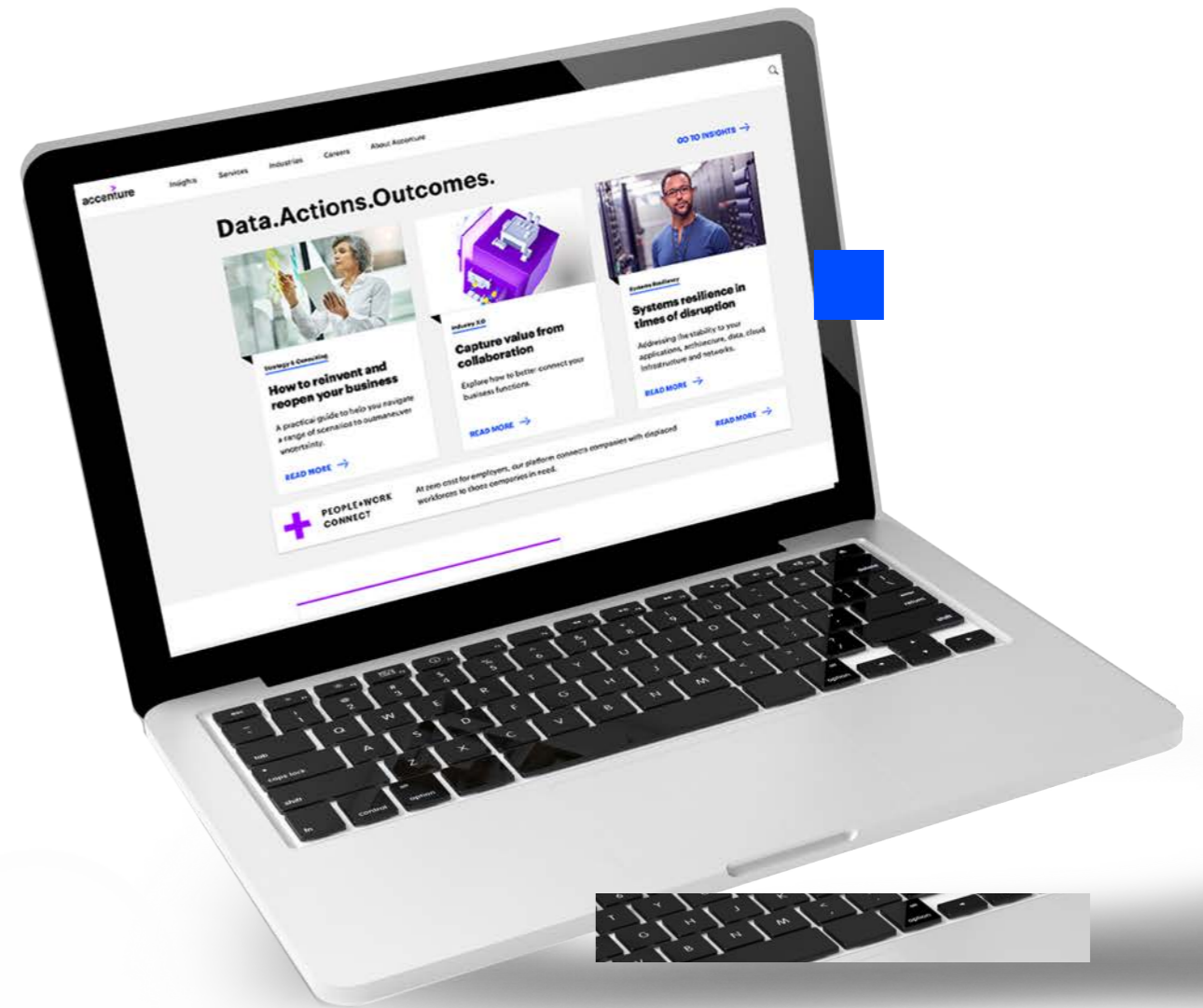
Barriers to digital inclusion

Successive governments have looked to close the digital divide with wide-ranging initiatives, from Ireland's National Skills Strategy 2025 and the National Broadband Plan to the 'Getting Citizens Online' scheme. Although there has been some success, key barriers to digital inclusion remain - most noticeably around motivation and awareness of those impacted.

The survey found that people with 'below average' digital competency face two obstacles:
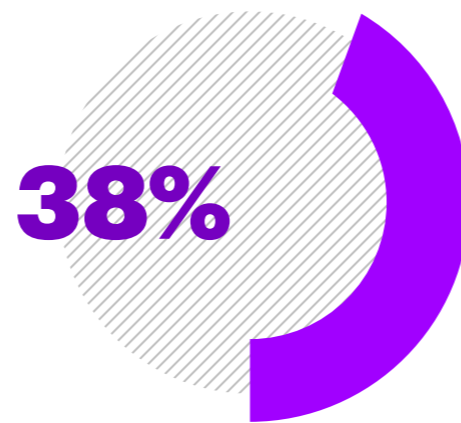
1. **Motivation to improve their digital literacy**
2. **Access to services that will improve their digital literacy**

Providing more learning opportunities and tackling sometimes entrenched mindsets about what people think they can and can't do is essential if Ireland is to bridge the divide and create a more equal society.
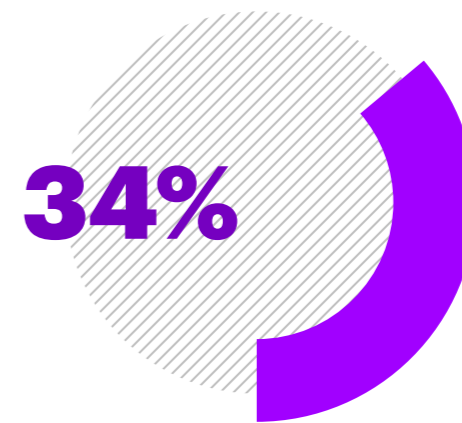
1. Motivation to improve their digital literacy

40%
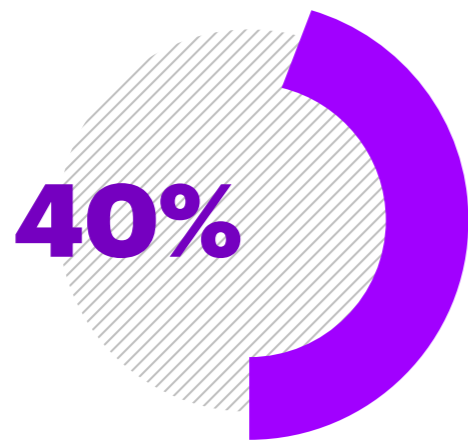
40 percent of people with poor digital skills don't see a need to improve
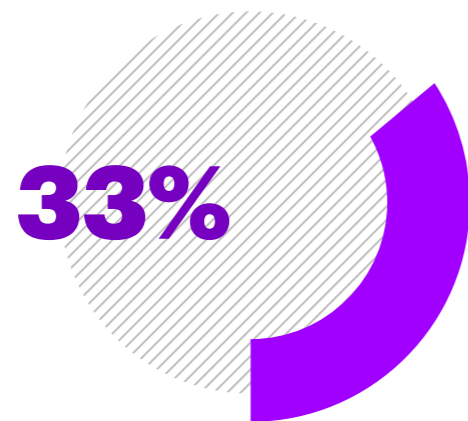
38%

38 percent are not interested in up-skilling

34%

34 percent are not confident enough to believe they'll be able to learn
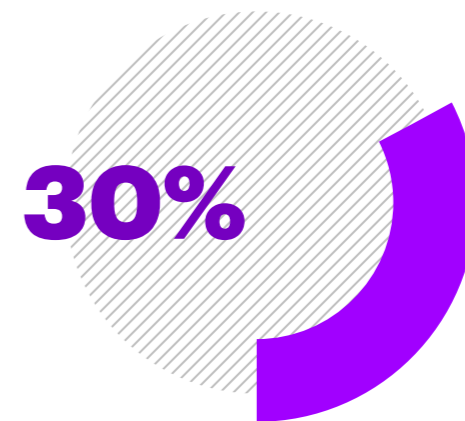
2. Access to services that will improve their digital literacy

33%

Over one third of people with 'below average' skills cite a lack of available resources or courses in their local area as the number one obstacle to up-skilling

29%

**29 percent** say they 'don't know where to learn'

30%

30 percent say they 'don't know how to go about it'

Facilitating digital inclusion

Everyone is a stakeholder in digital enablement. Government is moving more services online, businesses are increasingly dependent on e-commerce channels, and almost every sector is not just more reliant on technology, but on employees that know how to use it.

The skills shortfall is well documented. The government predicts a further shortfall of ICT skills of almost 150,000 people by 2022, prompting concerted efforts to increase the uptake of STEM subjects. It is in the collective interest of everybody to go further and find ways to upskill the digitally disengaged parts of the population.
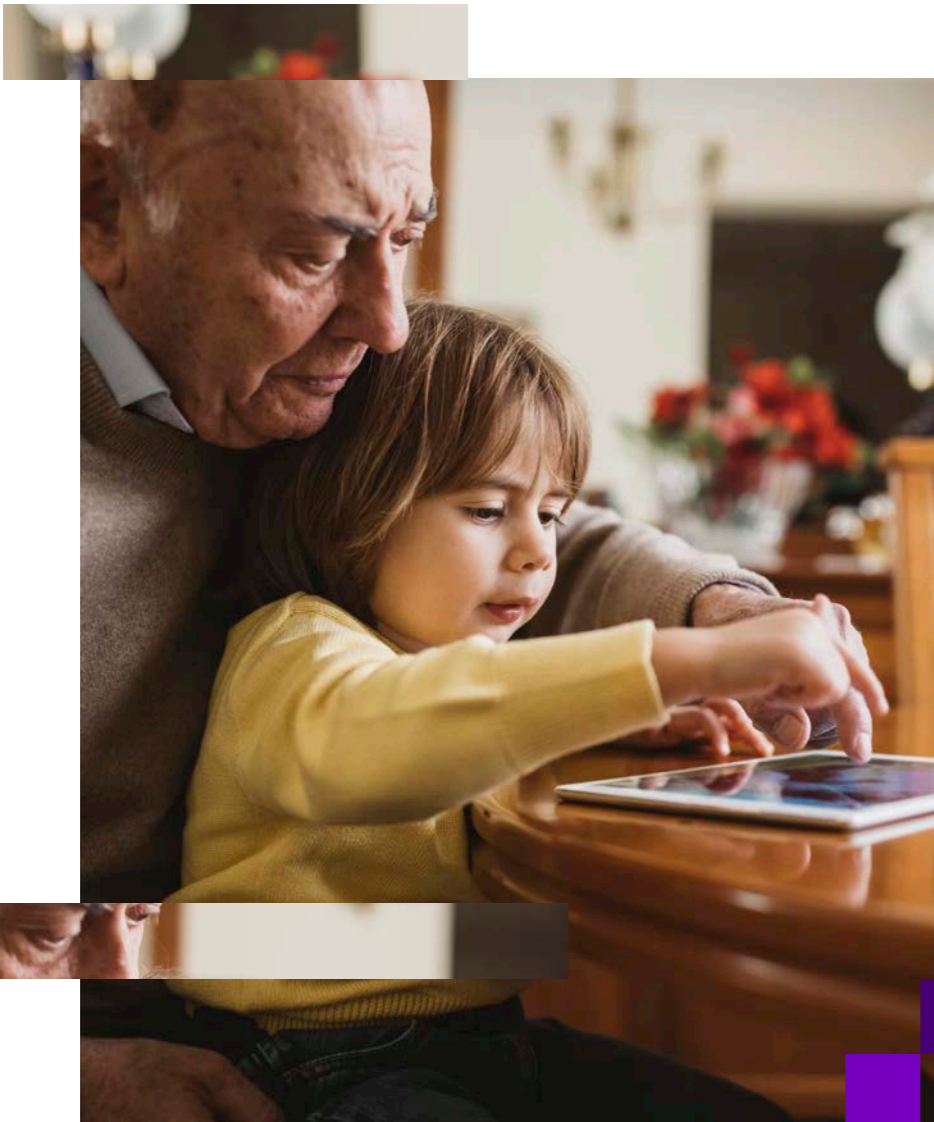
The experience of other countries and inputs from our key stakeholders' point to an approach revolving around 3C's:

Consistency
Managing the gap

| By establishing a common national framework that stakeholders can work towards, a more consolidated, non-siloed approach to digital literacy can be achieved. This would necessitate bringing stakeholders closer together and creating a tighter ecosystem that would have the knowledge to address the gap.

Curriculum
Arming people with skills to bridge the gap

| Changing the curriculum and embedding the critical thinking alongside more functional skills will better prepare citizens for the digital world and 21st century work. This would be applied to lifelong learning opportunities as well as second and third level education.

Communication
Raising awareness of the gap and how to overcome it

| An inclusive campaign that speaks to all citizens in ways that resonate will raise national awareness of the digital divide and directly communicate learning opportunities, including a cultural shift towards lifelong learning and its importance to every member of society.

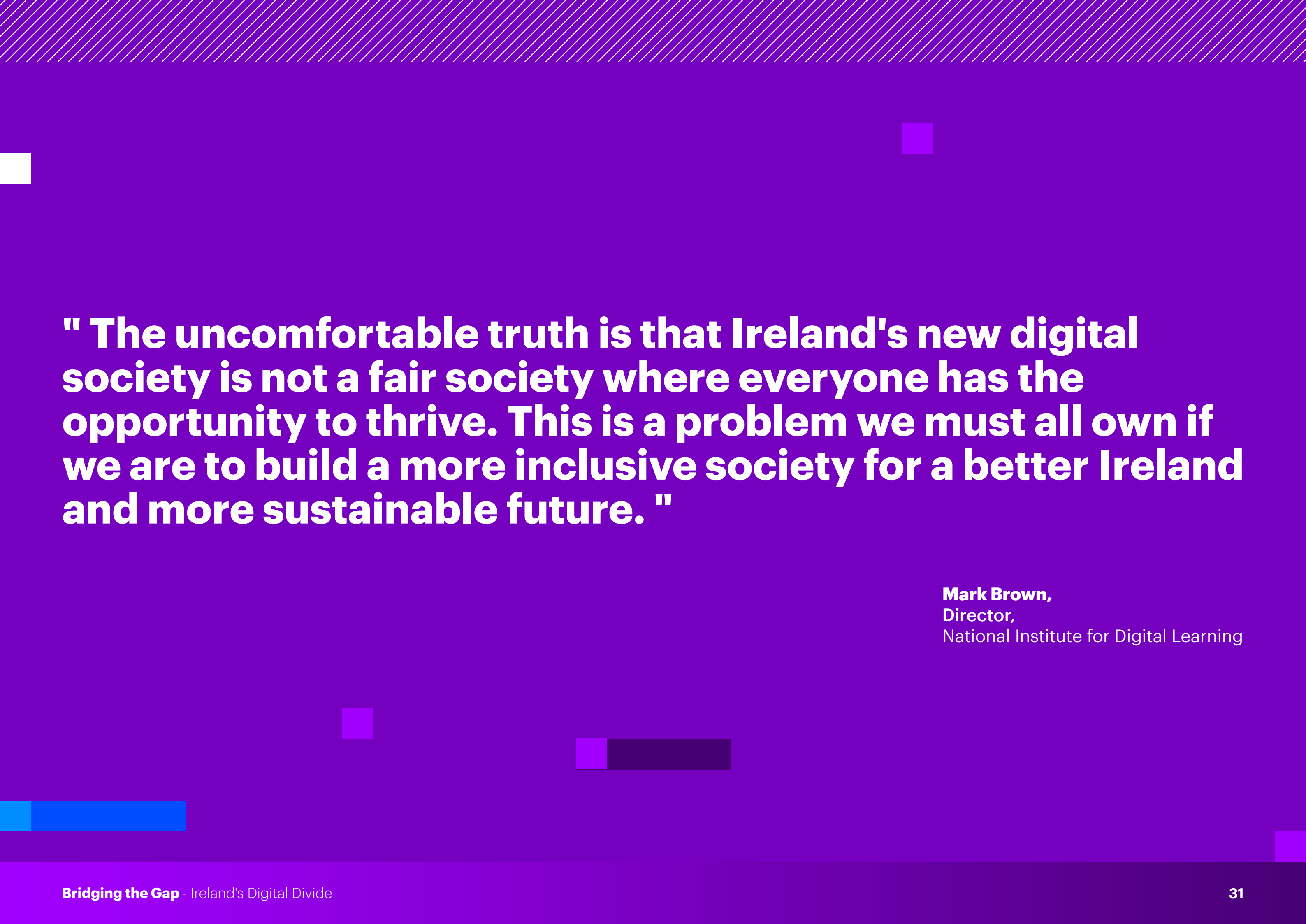# WHAT IS DIGITAL LITERACY AND WHY DOES IT MATTER?

The emergence and development of digital technology over the last 20 years has had a profound effect on people and the way they live – as citizens through online government resources; as employees in increasingly technologically driven businesses and industries; as consumers with the rise of e-commerce and streaming entertainment services. Even family and friend relationships have been given a digital dimension with social media platforms.

As more aspects of society become dependent on digital resources, systems and devices, there is pressure on individuals to be able to use and interact with them. This increases the need for digital skills, characterised by the European Digital Competence Framework for Citizens[1] (DigComp) as proficiency levels needed for employment, personal development and social inclusion. DigComp defines digital competence as inclusive of both functional and technical skills, such as using a computer, accessing the internet, downloading software, together with critical thinking, often labelled 'soft skills', that reflect an emotional intelligence and the capacity to analyse and engage.

The EU Commission's annual Digital Economy and Society Index (DESI) measures and tracks digital performance amongst EU member states. In 2020, Ireland ranked 18th of the 28 EU states with only 53 percent of the population described as having 'basic digital skills' – the EU average is 58 percent. To be classified "basic or above basic" on the overall indicator, an individual has to have basic or above basic skills in all the four competence domains - information, communication, content-creation and problem-solving. Clearly there is a digital skills gap, or digital divide, amongst the Irish population that needs to be addressed.

[1] The European Digital Competence Framework for Citizens was published by the European Commission in 2013.

" The uncomfortable truth is that Ireland's new digital society is not a fair society where everyone has the opportunity to thrive. This is a problem we must all own if we are to build a more inclusive society for a better Ireland and more sustainable future. "

Mark Brown,
Director,
National Institute for Digital Learning

Two-speed Ireland

The presence of a two-speed Ireland, of 'haves and have-nots', was highlighted in the DESI's 'integration of digital technology' metric. In contrast to our overall digital skills competency as a nation, Ireland came out top amongst EU countries for e-commerce turnover, social media usage by the population, cloud usage by enterprises, and the percentage of small and medium-sized enterprises selling online.

There is clearly a gap between digitally driven businesses and individual skills that risks being exacerbated by the next wave of connected technology. AI and data driven analytics will further empower a business community in the fast lane, but technology that is expected to accelerate automation in the workplace will impact the jobs held by many people who are already impacted by social marginalisation.

Digital inclusion is not just about online interactions, it's about being able to participate in a fast-changing workplace. Ireland's National Skills Strategy 2025, published by the government in January 2016, stated that 'technology is one of the key drivers of change and improved digital skills will be vital for Ireland's future, both in higher-end dedicated ICT jobs and, more widely, as a basic core competence'. Training and up-skilling will be important if Ireland is to sustain its position as a high-tech economic hub.

There is a consensus that critical thinking has to be embedded in 21st century learning. DigComp identifies competencies like problem solving, data literacy, communication, and collaboration as essential for closing the digital divide, for bringing the digitally disenfranchised into the fast lane and creating a more fair and equal society.

Good work is being done by a variety of bodies within Ireland. The opportunity now is for Ireland to take a leadership position on this global issue by arming all its citizens with both the functional skills to understand how to use technology and, importantly, the critical thinking skills to understand the implications of using technology.
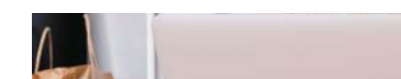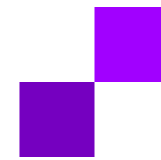
DIGITAL MARGINALISATION ALIGNED TO CLASS, AGE AND ACCESS

To better understand the findings of the DESI, which uses observable measures to assess people's digital skills, we interviewed Irish citizens and asked them to self-assess their own capabilities. We explored their interactions with a range of online content and services, spanning commerce, government and health.

The results of the research back up the Index findings, revealing high levels of disengagement in Ireland and a correlation between low digital skills and a susceptibility towards online scams and 'fake news'.

Level of Digital Skills

42%

of people rated themselves as 'average' or below

25%
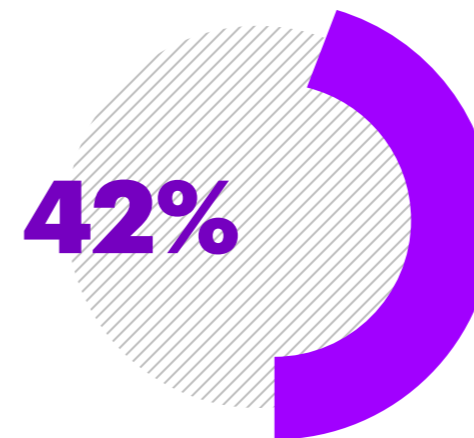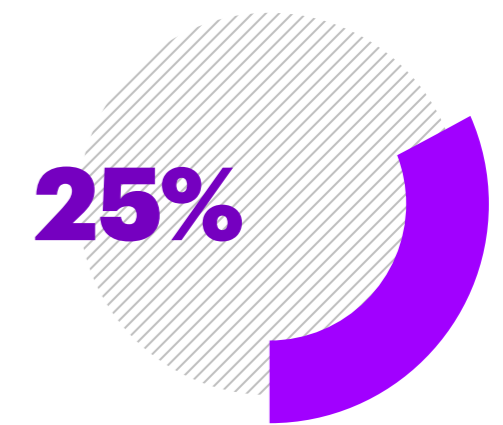
of people rated themselves as 'excellent'

When asked to rate their current level of digital skills, **42 percent** of the population rated themselves as 'average' or below. Only **25 percent** rated themselves as 'excellent'.

Over **one in five people** are not interested in using the internet. They are more likely to be men aged 55+, have lower education and have 'average' or poor digital skills.

70 percent of people who attained a maximum of second level education are not confident identifying fake or unreliable information. Over 55s with lower level social skills are also less confident identifying false information online and more likely to fall prey to 'fake news' or internet scams.

Exploring the most common areas of internet enabled digital interaction suggests disengagement is widespread across Irish society, and not limited to an older age demographic.

Online shopping

| 28 percent of people never shop online. Of those who don't, almost a third are under 55.

| Regular online shoppers tend more to be female, ABC1 and in a younger age bracket. Naturally, those with more digital skills shop online more often.

Social networking

| 24 percent of people don't use social networks. Non-users are more likely to be males, over 55, in lower social class groups. They have not progressed beyond second level education and have 'average' or poor digital skills.

| Despite Ireland having one of the highest proportions of active social media usage in the world, only 43 percent of people with less than 'average' skills were comfortable conversing online with friends and family.

Online government

| More than half of people over the age of 55 are uncomfortable using government services online – this is one in five across all age groups.

Working online

| Almost a third of all respondents felt they were not at all confident installing apps or software.

| 49 percent said they were uncomfortable creating and editing documents.

Financial transactions

| Over one in five of the Irish population do not use online banking.

| 19 percent of the population does not feel confident conducting basic financial transactions online.

| 80 percent of people who self-identify as having 'average' or below digital skills are uncomfortable with online financial transactions.

28%

of people never shop online

24%

of people don't use social networks

23%

of people don't use online banking

" Whilst participating in society digitally should be a choice, for many, there are barriers in place blocking their digital participation in an increasingly "digital-first" world. This research shows that a large proportion of the Irish population are missing out on the potential financial and social benefits that these services can offer, such as feeling connected to others or cost-savings from online shopping. It also shows that the digital divide is not binary - you are not just online or offline - it is possible to be an internet user but only have the skills or interest to use digital tools in a limited way. "

Helen Milner,
Chief Executive Officer,
Good Things Foundation

Social class is an obstacle

Only 28 percent of respondents identified as ABC1s described themselves as 'average' or below when it came to digital skills, a figure that rises to 50 percent with C2DEs. Inextricably tied to social class is education. The 55 percent of people described as having 'average' or 'below average' digital skills had attained Leaving Cert level or below.

The generation gap

While a significant number of 'digital natives' – individuals who have grown up with the internet and digital devices – describe their digital skills as 'average' (over one in five of those aged 18-34), there is still evidence of a generational split, that older citizens inevitably fall on the wrong side of the digital divide.

Over 45s tend to have the lowest confidence in their digital literacy. Feeling 'below average' were 44 percent of 45-54s, 60 percent of 55-64s, and 70 percent of over 65s. Among those 'not interested in using the internet' were 34 percent of over 55s.

Connectivity is a challenge

There is consensus in Ireland that rural broadband connectivity needs to be improved, and it may be the simplest remedy to one problem area. When asked what was the main obstacle to accessing the internet and services, 42 percent identified poor internet connection and 24 percent identified no access. Regional disparity was evident with 50 percent of Connacht and Ulster respondents identifying poor internet connections as an obstacle, compared to 37 percent in Dublin.

24%
## of people identified that they do not have access to the internet

" Motivation and access are complex issues and cannot be tackled in isolation. Early technology adoption requires a balanced approach in a manner which empowers learners to take ownership of their own digital identity and upskilling. This requires a focus on the needs and interests of citizens and flexible programmes built around real-life experiences. It also requires institutions and authorities to apply universal design/inclusive principles when introducing new technologies to be used by citizens."

Brendan Ryan,
Learning Technology Development Officer,
Limerick and Clare Education and Training Board

THE IMPACT OF A WIDENING DIVIDE
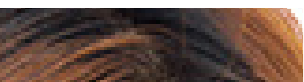
The unintended consequence of an increasingly digital society is the risk that it will reinforce or even increase social inequality. Academics Nicole Zillien and Mirko Marr describe how 'digital divide research empirically proves the existence of digital inequalities, which result in higher social inequalities'[2].

As daily life becomes more intertwined with technology, the danger is that socially disadvantaged groups will experience further marginalisation.

[2] The Digital Divide: The Internet and Social Inequality in The Digital Divide: The Internet and Social Inequality in International Perspective, by Massimo Ragnedda and Glenn W. Muschert, 2013.

Three areas in particular could be problematic: social isolation, access to services, and employment.

Isolation from lack of communication

As communication and social interaction increasingly moves online, the 'digitally disengaged' risk further isolation. While 68 percent of the Irish population are regular social media users, 24 percent are non-users. This cohort is most likely to be male, over 55, and living in rural areas. They are from lower social class groups who have not progressed beyond second level education and have 'average' or poor digital skills. Another area of worry for less digitally skilled members of society is job applications. With the recruitment process moving online (to comply with GDPR many businesses won't accept in-person applications) a large section of the society are finding it harder to even apply for jobs.

Access to services impacted

A range of government and financial services, like passport applications and frictionless online banking services, have been welcomed by many, but people with low digital skills are alienated and left behind. Our research shows that 23 percent of Irish people are not confident using government online services, a number that rises to 41 percent amongst those with lower levels of digital competency. The risk here relates to human centred design, where solutions to problems are developed by focusing on the end user's steps in the process. Difficulty arises when the person designing a solution indulges in confirmation bias ('the rest of the world is similar to me') or the end user is ill defined. These implicit biases compound over time and groups of people are inevitably excluded.

Employment at risk from automation

The Government's 2018 report, 'Digital Transformation:

Assessing the Impact of Digitalisation on Ireland's Workforce', estimates that one in three jobs in Ireland are at high risk (a probability greater than 70 percent) of being disrupted by the adoption of digital technologies. At risk from automation, according to the OECD, are one in ten jobs and over half of employment sectors (including retail, transportation, agriculture/forestry/fishing and construction) and 40 percent of workers with a lower secondary degree.

BREAKING DOWN BARRIERS: MOTIVATION AND ACCESS

The changing jobs market makes ongoing education and training more necessary. There is a twofold need: to meet the ICT skills shortage and to enable people in jobs disrupted by automation to find new jobs. The problem is that the cohort of society disproportionately impacted by automation is less likely to be confident in their ability to engage in lifelong learning.

For those with low digital skills, barriers to improvement fall into two categories – a lack of motivation, and a lack of access to the services, or at least awareness of how services can be accessed.

34%
of people say they are not confident enough to believe they will be able to learn

30%
of people say they don't know how to go about it

Motivation

Around one sixth of the Irish population who have 'average' or 'below average' digital skills, don't feel the need to improve. The mindset is worse among people with poor digital skills, rising to almost 40 percent; 38 percent have no interest and 34 percent say they are not confident enough to believe they'll be able to learn.

A lack of digital skills also has a knock-on effect for other types of learning and up-skilling. Of those who describe themselves as having 'above average' digital skills, 81 percent say technology has had a positive impact on their ability to learn a new skill. This drops to 54 percent amongst those with 'below average' skills. This is likely to become an even bigger issue as both formal and informal education moves online.

Overcoming the mental block and 'not for me' attitude may be one of Ireland's biggest challenges. The motivation gap needs to be replaced by a 'growth mindset', a term coined by Carol Dweck, Professor of Psychology at Stanford University, who talks about brains and talent as just the starting point for people who 'believe that their most basic abilities can be developed through dedication and hard work'. She argues that 'this creates a love of learning and a resilience that is essential for great accomplishment'.

Access

The access inhibitor of not having quality broadband is well understood, particularly in rural areas, and it's widely accepted by almost every stakeholder we spoke to for this report that this is adding to the divide. Enabling other types of access, to lifelong learning and up-skilling opportunities, are also crucial.

Despite the numerous bodies (public, private and otherwise) doing excellent work in this space, over one third of those with 'below average' skills cite a lack of available resources or courses in their local area as the number one obstacle to up-skilling. 29 percent say they 'don't know where to learn' and 30 percent say they 'don't know how to go about it'.

The first and hardest part of an education drive will be convincing citizens that they have the ability to improve and grow digital skills. Part of the process will be about explaining all the benefits of digital engagement, before steering them to appropriate courses that are not daunting and are accessible.

" We were already aware that the way in which we learn, work, do business and even interact with each other was changing by the day, and that digital capability was becoming ever more critical to leading fulfilled lives and careers. Indeed, further education and training (FET) has put a strong focus in recent years on building such digital capacity across all our learners, trying to mitigate against the digital divide that was increasingly apparent, and which was reinforcing inequalities and disadvantage across communities. While the digital divide is a worrying challenge, there is also a great opportunity to use the community-based ethos of ETBs and their education partners, and the learning and tools that they have available, to make a real impact " in addressing the issues faced by our most marginalised groups in society. "

Andrew Brownlee,
Chief Executive Officer,
SOLAS

CONCLUSION

BRIDGING THE GAP WITH EDUCATION

If stakeholders can work to narrow the divide, Ireland could lead the way by making technology an equaliser rather than an inhibitor, empowering the digitally disadvantaged with skills that will make them more active participants in society and a tech-driven economy. Societal problems like loneliness could be tackled by digital skills, not exacerbated by their absence.

If we don't improve, social exclusion and class divides will harden as more activity moves online.

Drawing on Accenture's experience in this area, along with our engagement with over 30 stakeholders as part of this report and the national research that underpins this, we have gained a better understanding of the barriers to digital inclusion and how to break them down.

The key is education. Ireland's National Skills Strategy 2025 focused on the importance of having 'a more dynamic, responsive and high-quality system that provides all learners with the knowledge and skills they need to participate fully in society and the economy'.

" A whole society approach to tackling Ireland's Digital Divide is urgently needed. We must address this growing and deepening divide that is creating a new underclass; the digitally disadvantaged. We need government, business and community education sectors to come together to address this. No one part of Irish society can address this on its own. We need awareness that there is a significant lack of digital skills and we must communicate that everyone can, and should, have basic digital skills. We need accessible, local pathways to learner-centred digital education that meets the learner where they're at. And we need a common framework across business and education as to what basic digital skills are needed now and in the future. "

Heydi Foster-Breslin,
Chief Executive Officer,
An Cosán

Recommendations
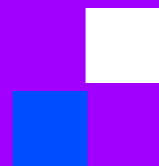
Consistency
Managing the gap

While there is a community of parties working towards a common goal on digital skills, the feedback from stakeholder interviews is that more could be achieved collaboratively. Public and private partners working together will generate more sustainable and scalable solutions than a myriad of initiatives that are complementary but sometimes overlapping.

There is precedent: the Irish Digital Skills and Jobs Coalition has played an important role in bringing together different groups; the UK's Future. now initiative is looking to boost digital skills through a coalition of companies, civil society groups and government.

To be effective, a new Irish coalition would need to work with an accepted common framework for measuring digital literacy skills – DigComp is perfectly placed – and a common language for enabling conversations between education, government and the labour market. A national framework agreed by a tight ecosystem of stakeholders would facilitate a more consolidated approach to digital literacy.

Communication
Raising awareness of the gap and how to overcome it

Our research highlights how motivation and access are two deep-rooted barriers to digital engagement. In the same way that communication has successfully tackled adult literacy and road safety, a campaign that promotes behavioural change could play an important part in closing the digital divide.

An inclusive campaign that speaks to all citizens will raise national awareness of the digital divide and the role of education in closing it, including a cultural shift towards lifelong learning and its importance to every member of society.

Clear communication is needed to convince people with poor digital skills to change their situation and to identify the resources to do it. Directly offering them access options to up-skilling services should be a priority. Reaching them with information about local courses that are practical and suitable would be the grassroots component of a national campaign.

Curriculum
Arming people with the skills to bridge the gap

In the last decade, the educational focus within formal and informal education has been on the functional side of digital literacy. From ECDL to second level computer classes, courses have been about arming Irish people with the basic 'hard skills' to interact with technology – word processing, creating documents, internet basics.

The next decade must be about teaching transversal skills, critical thinking and higher-level cognition, which are increasingly recognised as vital building blocks for developing digital skills. Embedding these so-called 'soft skills' in the curriculum will better prepare citizens for the digital world and 21st century work.

Educational stakeholders and policy makers need to work together to develop a new curriculum that prioritises digital literacy; and they need to make it available through lifelong learning programmes as well as second and third level education. Success will ensure Ireland continues to play host to many of the biggest technology, MedTech and pharmaceutical companies in the world.
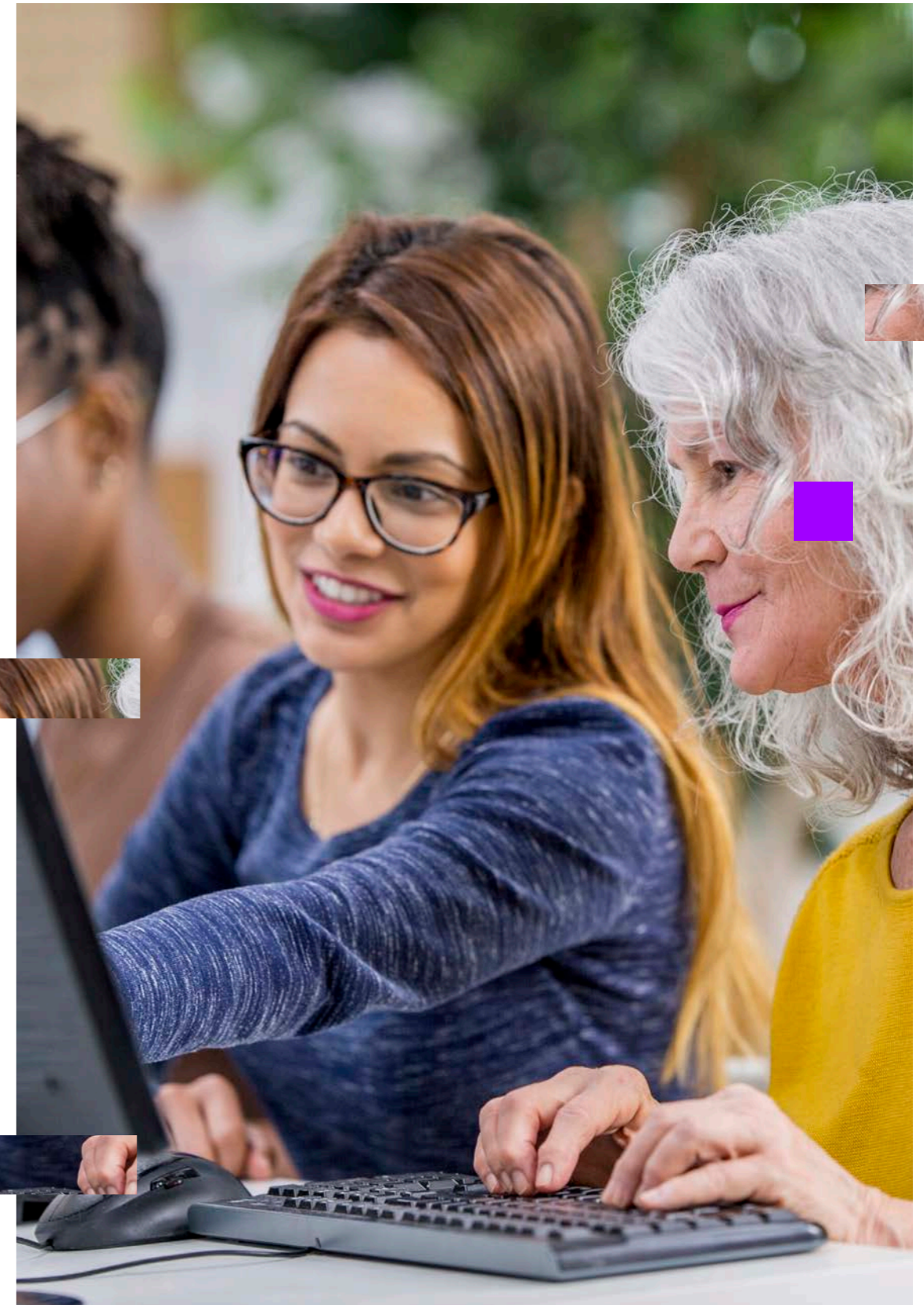
Spotlight: Accenture Education Programmes

Accenture places huge importance on engaging in the challenges of the communities we live and work among. In Ireland, our priorities are supporting the creation of jobs, improving skills and employability, and contributing to the country's economic success.

Through our global 'Inclusive Future of Work' initiative, we have committed to creating new skilling pathways that will help five million people thrive in a digitised society by 2025. We are helping to imagine and realise a future in which all workers at all levels have the motivation, means and opportunity to adapt to the digital economy and thrive in it.

Our 'Skills to Succeed' programme opens doors to employment and economic opportunity, drawing on two core capabilities: training talent and convening partnerships to achieve tangible results. By mobilising our people, partners, clients and others, we strive to make a measurable and sustainable difference in the economic vitality and resilience of individuals, families and communities.

In Ireland, we are currently rolling out an online 'Skills to Succeed Academy' in partnership with An Cosán, which offers adult education and other services to people from disadvantaged areas. The goal of the Academy is to give people the skills and confidence to get a job, choose a career or build a business. Highly interactive training modules take participants through the journey from finding and applying for a position, to being successful in a work environment.

As part of our work with An Cosán, Accenture developed a digital skills programme to target the most disadvantaged in society and help close the digital divide.

About Accenture

Accenture is a leading global professional services company, providing a broad range of services in strategy and consulting, interactive, technology and operations, with digital capabilities across all of these services. We combine unmatched experience and specialized capabilities across more than 40 industries - powered by the world's largest network of Advanced Technology and Intelligent Operations centers. With 513,000 people serving clients in more than 120 countries, Accenture brings continuous innovation to help clients improve their performance and create lasting value across their enterprises..

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Survey Methodology

A random sample of 1,001 adults aged 18+ were interviewed by RED C between the 17th and 24th October 2019. A random digit dial (RDD) method was used to ensure a random selection process of households to be included – this also ensures that ex-directory households are covered. Half of the sample were interviewed using an RDD landline sample, with the other half conducted using an RDD mobile phone sample.
This ensures 98 percent coverage of the population reaching landline only households, mobile only households and those with both a landline and a mobile. Quotas are set and final data weighted to known profiles on gender, age, region, social class and phone type to ensure that the sample is representative of the total Irish population aged 18+.

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