

Digital Exclusion in Kent

June 2021



1 Report Contents

This report provides a broad overview of the evidence base for digital inclusion and analyses on digital exclusion in Kent. This is in addition to the following projects from Kent Analytics:

- Literature search
- [Digital Exclusion in Kent: Power BI Report](#)

1	Report Contents	2
2	Executive Summary	3
3	Digital Exclusion: An Introduction.....	4
3.1	What is digital inclusion?.....	4
3.2	What are the barriers to digital inclusion?	4
3.2.1	Access.....	4
3.2.2	Skills.....	5
3.2.3	Motivation	5
3.2.4	Confidence	6
3.3	What are the key indicators of digital inclusion/exclusion?	6
3.4	How can we support those who are digitally excluded?	6
3.4.1	Mature and older people.....	9
3.4.2	Working age on low income.....	10
3.5	Summary	10
4	Digital Exclusion in Kent	11
4.1	Socio-demographic profiles	11
4.1.1	Keeping up with developments in technology	11
4.1.2	Lower levels of Internet use	12
4.1.3	Technology owned or accessed	12
4.1.4	Profiles at risk of digital exclusion	13
4.1.5	Summary of findings.....	20
4.2	Internet user and engagement profiles.....	21
4.2.1	Engagement with the Internet.....	21
4.2.2	Digitally excluded profiles	22
4.2.3	Summary of findings.....	23
4.3	Mapping digital exclusion.....	24
4.3.1	Digitally excluded groups.....	24
4.3.2	Deprivation	26
4.3.3	Likelihood of responding digitally	28
4.3.4	Lower levels of internet use	31
4.3.5	Broadband speeds and connectivity	33
4.3.6	Summary of findings.....	35
5	Conclusions.....	35
6	Methods.....	36
6.1	Experian's Mosaic.....	36
6.2	2018 Internet User Classification	37
6.3	Digital Exclusion Scoring	38
7	Sources	39

2 Executive Summary

1. The barriers to digital inclusion are access, skills, confidence, and motivation.

Digital inclusion is about ensuring everyone has access and the skills to use the Internet and digital technologies. Digitally excluded people can lack skills, confidence, and motivation, along with having limited or no access to equipment and connectivity.

2. There is a close relationship between digital exclusion and social inequalities.

The most deprived communities in Kent are much more unlikely to keep up with developments in technology and only have access to a smartphone. Affluent households are more likely to use the Internet several times a day, whereas the more deprived households tend to use the Internet roughly every day or sometimes less than that.

3. There are significant disparities in digital inclusion across and within districts in Kent.

Thanet is consistently highlighted as the most digitally excluded district in Kent across multiple measures of digital exclusion. Dartford, Dover, Folkestone and Hythe and Swale also have many digitally excluded neighbourhoods.

Sevenoaks, Tonbridge and Malling and Tunbridge Wells are the districts with the least digitally excluded neighbourhoods. However, rurality in Tunbridge Wells means that it ranks as the top district for households with poor broadband.

Even within a district, there can be marked disparities between neighbourhoods. For example, over three-quarters of households in an LSOA in Folkestone and Hythe are likely to not use the Internet every day as compared to 0.1% of households in another LSOA in the same district.

4. There is no “one-size-fits-all” approach to digital inclusion.

There are certain populations who are more likely to be digitally excluded, such as older people, those on low incomes and those living in rural areas. However, these populations have different barriers to digital inclusion. This means that needs will be different, and any approaches will need to be tailored to different target populations.

Typically, older people disengage digitally through choice whereas those on low incomes disengage digitally through exclusion. We know that older people are less confident in using the Internet, whereas younger people tend not to be able to afford devices to access the Internet. In addition, those living in rural areas are more likely to receive poor broadband.

5. Digital exclusion can perpetuate social inequalities.

Digital exclusion reinforces other existing forms of social and economic deprivation. For example, those digitally excluded may be disadvantaged through not being able to search or apply for jobs online, be excluded from training and upskilling or be excluded from more flexible working practices such as working from home. The segments of the population in significant need of and likely to engage with public services are more likely to be digitally excluded, which potentially limits the reach of online services and restricts the potential for long-term financial savings.

3 Digital Exclusion: An Introduction

The COVID-19 pandemic has resulted in a major increase in digital activity in the last year, with 1.5 million people starting to use the Internet during the pandemic. However, 5% of the UK population have not used the Internet in the last three months¹³. Of those online, 50% said that they would not have coped through the pandemic without technology and 57% had a net increase in Internet usage during the pandemic¹³. With this increasing use of the Internet and technology, many excluded groups are being left behind²².

3.1 What is digital inclusion?

Digital inclusion is about ensuring everyone has access and the skills to use the Internet and digital technologies. Digitally excluded people can lack skills, confidence, and motivation, along with having limited or no access to equipment and connectivity.

Digital inclusion is important as there are many benefits to being online. The Centre for Economics and Business Research have identified five benefits of gaining digital skills: earnings benefits; employability benefits; retail transaction benefits; communication benefits; and time savings¹. Being online connects people with friends and family (85% agree with this statement) and to feel less alone (51% agree), it helps people save money (67%), to manage and improve their physical and mental health (49%), helps with finding a job (50%) and helps people to develop professionally and improve their future work prospects (63%)¹³. Being offline can therefore exacerbate existing social inequalities.

3.2 What are the barriers to digital inclusion?

Research for the UK Digital Strategy¹¹ suggests that the barriers to digital inclusion are access, skills, confidence, and motivation, and more than one barrier may affect individuals at any one time. Additional barriers take effect when skills and confidence improve, including design (accessibility of digital services and products), awareness (what services and products are available) and staff capability and capacity¹⁶.

3.2.1 Access

Access is about having the means to connect to the Internet and go online. Currently, 5% of UK households do not have Internet access at home¹³. This is higher for older people (18%) and lower socio-economic households (11%)¹³. Even with access, 14% of adults access the Internet only infrequently¹³. Of those who have not used the Internet in the last three months, the top three reasons were: worry about identify fraud, the Internet being too complicated, and no interest in using the Internet¹³.

The smartphone is the most used device for accessing the Internet across all age groups, apart from those aged 65+ who are more likely to use a computer to access the Internet²⁰. In addition, one in ten adults only use a smartphone to go online, with three in ten people using their smartphone to complete online forms or applications on a weekly basis²⁰. Those in lower socio-economic groups are more likely to use only a smartphone to go online with limited access to other technologies²⁰.

Ofcom have evidenced that 20% of children have not always had access to a device for online learning while schools were closed, with 2% of school-age children relying on a smartphone only for internet access¹⁹. 23% of children in lower socio-economic households lack home broadband and access to a desktop, laptop, or tablet¹⁹.

Affordability limits many people's access to the Internet and digital technology. From a survey conducted by Kent County Council, the top reason for people having limited access to the Internet and digital devices was due to affordability (56%). In addition, many people were sharing devices (24%).

3.2.2 Skills

Skills relates to the ability to use the Internet and digital technologies (see the [Essential digital skills framework](#) set by the Government). In 2020, 78% of people had the full set of skills for their day-to-day lives, to be able to confidently use the Internet for their needs¹⁴. During the COVID-19 pandemic, 29% of people believe that they improved their digital skills, with 12% feeling that their skills have not improved but do need improving (increasing to 19% for older people)¹³.

The main driver for improving digital skills has been the need to work from home. At least one-quarter (28%) of people say they have upskilled themselves for work related reasons in the last year; 11% wanted to improve their job performance and productivity and 10% wanted to learn new skills to boost employment prospects¹³. People who are out of work are even less likely to be digitally capable and confident: 31% of unemployed people have low or very low digital skills versus 19% who are in the workforce¹³. This indicates that employment and now job type impacts the level of digitisation.

Among older people who said that they would like to use the Internet more, the most common barrier was lack of digital skills, especially among those aged 75+ (79% mentioned skills)¹. In addition, more than half a million people aged 65+ in the UK are 'lapsed users' of the Internet, i.e., people who used the Internet in the past but no longer do so¹. People become lapsed users due to difficulties keeping up with changes in technology¹. In addition, learning basic skills in one domain, e.g., video calling, does not mean these skills transfer to other domains, such as online banking or shopping.

3.2.3 Motivation

Motivation is the willingness to engage with the Internet and digital technologies. People need to understand how the internet and digital technology can help them to connect, learn or access services, and therefore have a meaningful purpose in engaging with the Internet and digital technology. However, 6% of the UK population do not think the internet is for them, rising to 60% of non-users⁸. People who left education under 16 years old, those with children, and those from lower socio-economic households are more likely to say that the Internet is not for them⁸. Only 15% of non-users aged 75+ and 19% of non-users aged 65-74 years old show an interest in using the Internet¹.

In addition, 3% of UK adults lack the support (25% of non-users), 3% say the Internet is too complicated (rising to 20% of non-users) and 2% say the Internet is too expensive (rising to 14% of non-users)⁸.

3.2.4 Confidence

Lack of confidence can potentially prevent users from making the most of the Internet or more susceptible to online harms. While confidence in using the Internet is high, it is not universal. According to a recent report, 5% of people are not confident in using the Internet²⁰. Lack of online confidence is most prevalent in older people (9%) and those in lower socio-economic households (11%)²⁰.

Internet safety is a concern for many people. The top reason for not using the Internet is identity fraud. Older people are less likely to feel confident in knowing how to manage access to their personal data online and are less likely to be aware of the ways online companies collect information about what they do online¹.

3.3 What are the key indicators of digital exclusion?

Research suggests that some populations are more likely to be digitally excluded than others¹⁷. These are:

- Older people
- People in lower income groups
- People without a job
- People in social housing
- People with disabilities
- People with fewer educational qualifications
- People living in rural areas
- People whose first language is not English

The evidence base suggests that there is a close relationship between digital exclusion and social inequalities, such as lower income, lower levels of education, and poor housing¹⁷.

3.4 How can we support those who are digitally excluded?

In a recent survey, 67% of people said they would improve their digital skills if they knew there was support available when needed¹³.

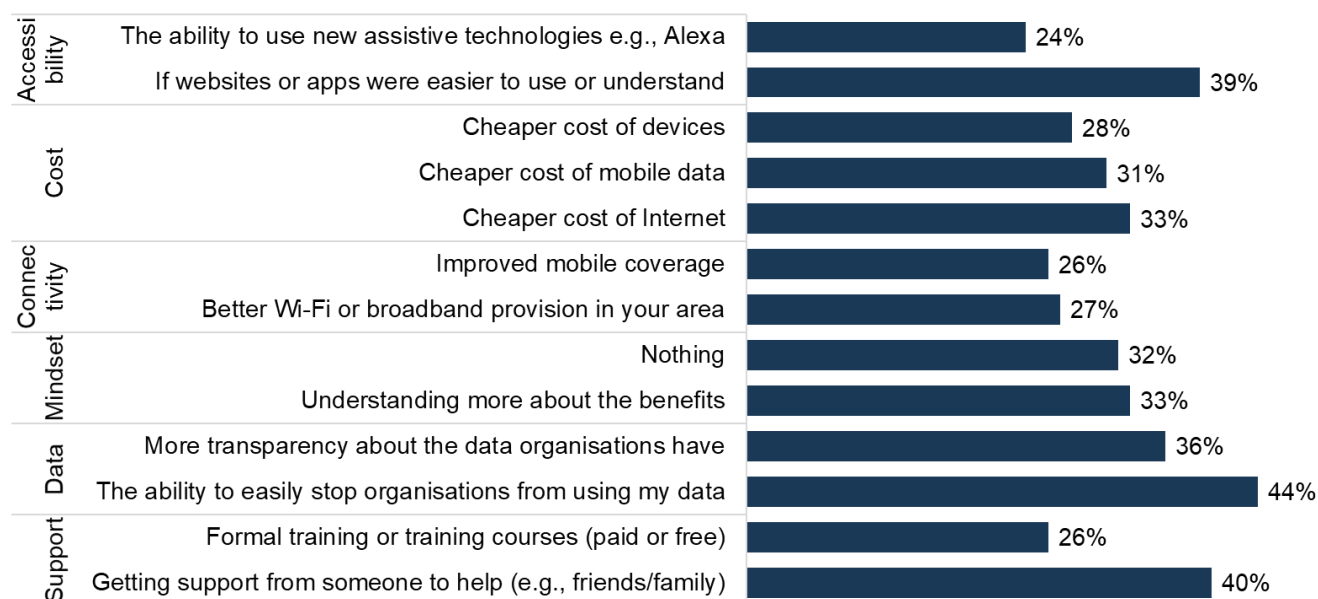
NHS Digital identified the following approaches to tackle digital inclusion¹⁷:

- Digital skills training
- Digital champions
- Intergenerational mentoring
- Assistive technology
- Free public wi-fi
- Social prescribing
- Digital skills of staff
- Raising awareness.

It should also be added that access to digital devices would also help tackle digital inclusion. Also, ways to reduce inherent social inequalities, such as equitable broadband access, could also indirectly help tackle digital inclusion.

Figure 1 shows ways to encourage those offline to use the Internet. When asked how to encourage those offline to get connected, the response “nothing” decreased by a third since 2020¹³. This indicates that more people are motivated to get online. To encourage those offline to use the Internet, we need to think about making it more accessible, decreasing the cost of the Internet and devices, increasing connectivity, making people aware of the benefits, lessen concerns about data and privacy, and provide support through formal training and informal social networks.

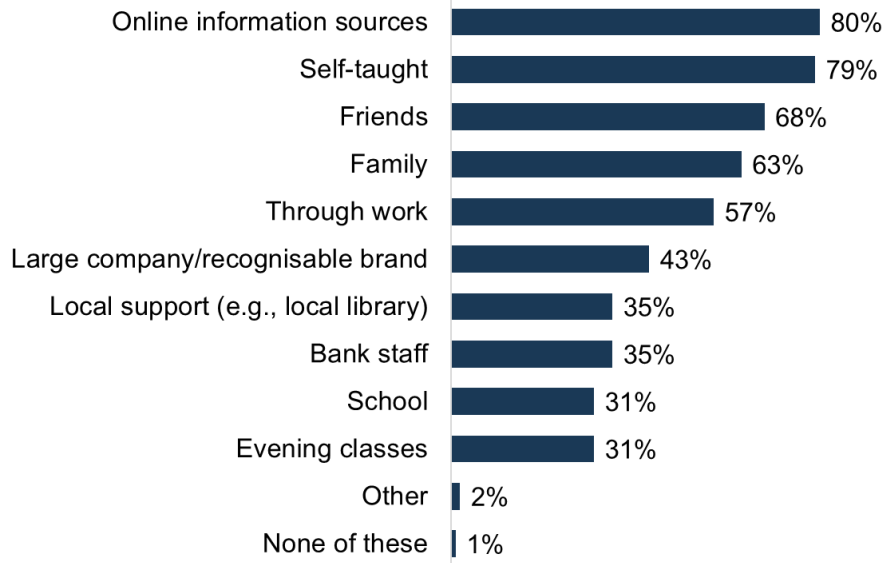
Figure 1. How to encourage Internet use



Source: Lloyds Bank UK Consumer Digital Index 2021¹³

Figure 2 and Figure 3 show the preferences for learning new skills. Propensity to learn and preference for support varies by age. Older age groups are more reluctant to turn to any of the available areas of support¹³. For most older people, the best approach to gaining digital skills is through ongoing support, tailored to their needs and preferences, and delivered on a one-to-one basis. The least digitally engaged prefer family and friends for support, whilst self-teaching and online sources are best for those who are more advanced and confident¹³.

Figure 2. The easiest ways to learn new skills are from online information sources, self-teaching skills or through friends and family



Source: Lloyds Bank UK Consumer Digital Index 2021¹³



Figure 3. Face-to-face learning still has its place when it comes to digital skills training for two-thirds of people



Source: Lloyds Bank UK Consumer Digital Index 2021¹³



An evaluation of the NHS Widening Digital Participation Programme⁹ recommended the following:

1. Co-design digital services and programmes
2. Develop digital hubs to improve inclusion
3. Build trust with the communities the service or programme is trying to support
4. Improve digital skills in the workforce
5. Embed digital inclusion in strategies

In recent years, libraries have seen a big demand for basic digital skills support, yet only 55% agreed their library had support from the local authority in relation to delivering digital inclusion. For 98%, working in partnership with local community organisations was seen as important for enabling effective digital inclusion activities in libraries, yet only 19% said they delivered outreach classes at another location. 92% felt there is a need for more training for library staff at all levels to deliver basic digital skills, to help embed digital inclusion activities across library services. Libraries could therefore be seen as a key delivery method for delivering support for digital inclusion in communities.

3.4.1 Mature and older people

The Centre for Ageing Better⁴ have identified the following principles for supporting people in mid to later life to get online:

1. Flexibility and relevance: Structured, skills-focused courses rarely work. Instead concentrate on helping people to do the things they need and want to do online.
2. The right pace: Older learners will pick up information and will progress their learning at different paces – a responsive approach is key.
3. Repetition and reflection: Creating space for repetition and reflection on success is vital to success.
4. The right language: Avoid jargon and focus on the task, not the tech.
5. One-to-one support: A strong teacher-student relationship is key to building a learner's confidence.
6. Time to build relationships: Taking time to build communication and trust helps to maintain learners' interest in digital and increase their self-efficacy.
7. Ongoing support: Support needs to be open-ended, allowing learners to return with questions and problems.
8. Co-design: Involve a wide range of users in the shaping and design of all services, new and existing, to ensure their relevance and effectiveness.

A pre-COVID study of digital inclusion projects for older people or those at risk of social isolation in Hackney found that recruitment as well as location have an impact on the reach of digital inclusion projects and the diversity of those participating⁶. The study found that learning digital skills needs to be tailored, such that an eight-week course was enough for some older people with no or limited digital knowledge and skills to gain some understanding of the digital world⁶. Those with higher skills levels were keen to further develop their skills with follow-up courses⁶. This highlights that programmes also need to include signposting for further opportunities for learning.

The study highlighted further barriers in several areas that need to be overcome for older people's ongoing use of digital devices⁶:

-
- Language and communication skills and understanding of risks in the digital world
 - Cognitive and physical skills
 - Dealing with error and subsequent frustration
 - Practical challenges such as cost of devices and data, knowledge how to buy data, and availability of WiFi at home

Further factors in determining whether older people continued to use and develop their digital skills outside of the project sessions were⁶:

- Ability to use a device
- Personal preferences for engaging with technology
- Ownership of a device
- Access to WiFi at home

3.4.2 Working age on low income

Digital exclusion also has an impact on younger people and support needs to be designed around their needs. There is a presumption that younger people who have grown up surrounded by the Internet and digital technology intuitively know how to use them and how to avoid the risks of being online¹². However, many younger people lack the necessary digital skills for employment¹². In addition, younger people from lower socio-economic backgrounds are less likely to have access to digital devices and to share devices between people in the household and use mobile data instead of a broadband connection¹³. For some families, the costs of devices and broadband connection is unaffordable¹². Therefore, support for many younger people and those with families would be in terms of equipment and broadband provision, digital skills for employment, and additional financial support.

3.5 Summary

- The key barriers to digital inclusion are access, skills, motivation and confidence
- The key determinants of digital inclusion are increasing age, social inequalities, and rurality
- Any support needs to be tailored to the needs of the group
- Digital inclusion is important as there are many benefits to being online. The increasing use of the internet for accessing key services - such as banking, government and council services - has implications for those who are not equipped, unable or unwilling to use them.

4 Digital Exclusion in Kent

4.1 Socio-demographic profiles

The Mosaic segmentation tool is a system for geodemographic classification of households⁷ (see [Experian's Mosaic](#) in the Methods section for further information). This system runs alphabetically from the most affluent (Group A) to the most deprived socio-economic groups (Group O).

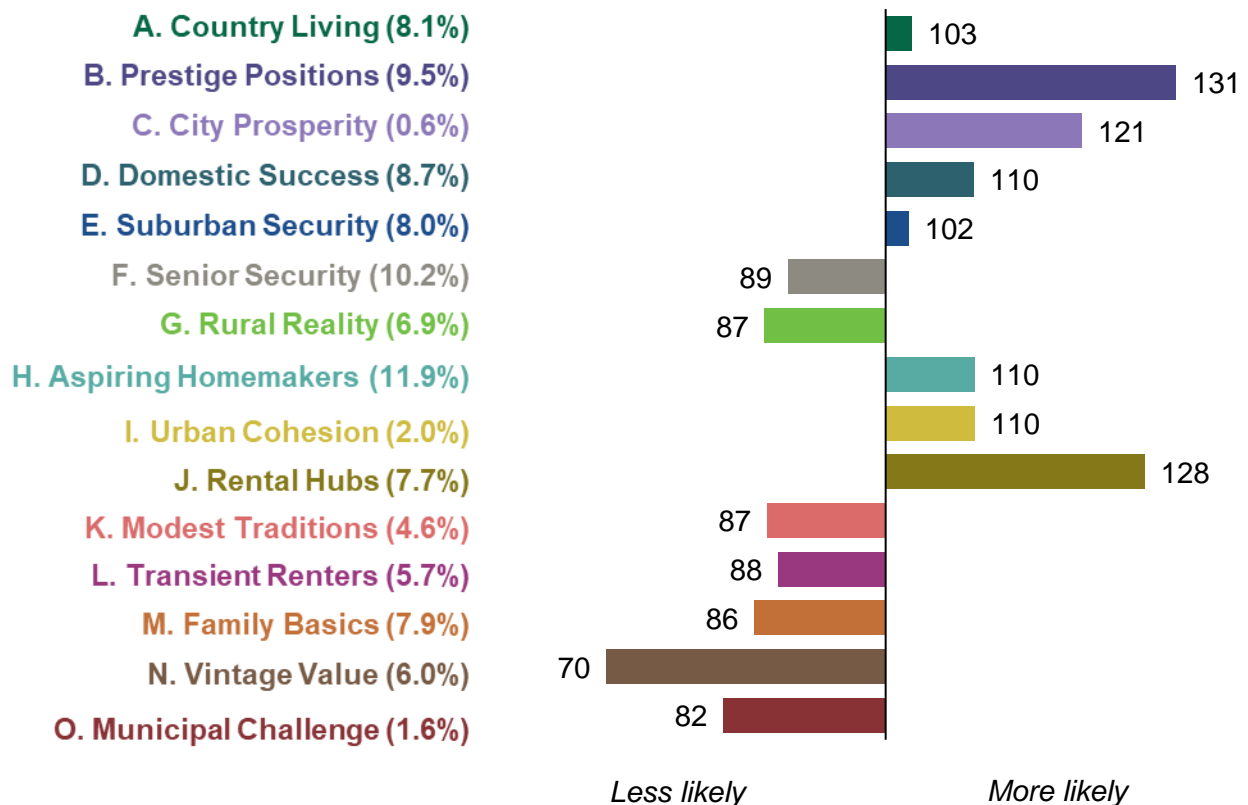
When looking at digital inclusion, the following variables from this data source have been identified:

- Try to keep up with development in technology (*source: TGI*)
- Internet usage – less than every day (*source: Research Now Digital*)
- Technology owned (or access) – smartphone, tablet, laptop & PC (*source: Research Now Channel Preference*)

4.1.1 Keeping up with developments in technology

Figure 4 shows the index of the Mosaic groups in Kent by whether they try to keep up with developments in technology. It clearly shows that the more deprived households are less likely to keep up with developments in technology (Groups K-O), as well as older people and those in rural locations (Groups F & G). The more affluent groups are much more likely to keep up with developments in technology (Groups A-E, H-J).

Figure 4. The most deprived communities are much more unlikely to keep up with developments in technology.

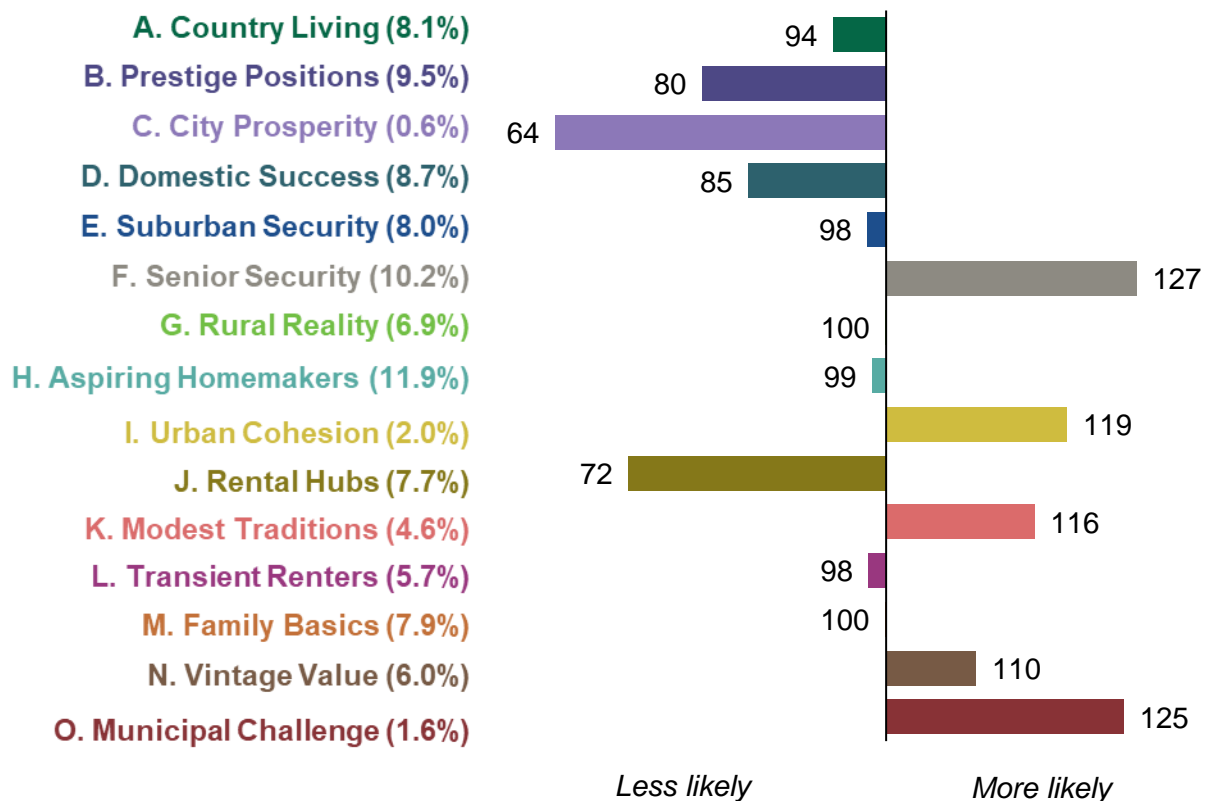


Source: Experian Mosaic 2019 Groups and Types⁷

4.1.2 Lower levels of Internet use

Figure 5 shows the index of the Mosaic groups in Kent by whether they use the Internet less than once a day. It shows that the more deprived households are more likely to use the Internet less than every day (Groups N & O), as well as older people (Groups F & K). The more affluent groups are much less likely to use the Internet less than every day (Groups A-E). Affluent households are more likely to use the Internet several times a day.

Figure 5. Older people and more deprived households are more likely to use the Internet less than every day



Source: Experian Mosaic 2019 Groups and Types⁷



4.1.3 Technology owned or accessed

Table 1 shows the four different types of technology likely to be owned or accessed by households in Kent (i.e., a tick represents that the index for that group is above 100). This shows that older people (Group F, K & N) and those in rural locations (Group G) are less likely to have access to technology. The table also shows that the most deprived group (Group O) is likely to only have access to a smartphone.

Table 1. Older people and those in rural locations are less likely to have access to technology

	Smartphone	Tablet	Laptop	PC
A. Country Living (8.1%)			✓	✓
B. Prestige Positions (9.5%)		✓		✓
C. City Prosperity (0.6%)	✓	✓	✓	✓
D. Domestic Success (8.7%)		✓	✓	✓
E. Suburban Security (8.0%)		✓	✓	✓
F. Senior Security (10.2%)				✓
G. Rural Reality (6.9%)				
H. Aspiring Homemakers (11.9%)	✓	✓	✓	
I. Urban Cohesion (2.0%)	✓	✓	✓	✓
J. Rental Hubs (7.7%)	✓	✓	✓	
K. Modest Traditions (4.6%)				✓
L. Transient Renters (5.7%)	✓	✓	✓	
M. Family Basics (7.9%)	✓	✓	✓	
N. Vintage Value (6.0%)				
O. Municipal Challenge (1.6%)	✓			

Source: Experian Mosaic 2019 Groups and Types⁷



4.1.4 Profiles at risk of digital exclusion

One way to look at digital inclusion is to identify particular socio-demographic profiles who are more at risk of digital exclusion using the Mosaic segmentation profiles⁷.

It is clear from the evidence base and this analysis that there are three main groups within the population that are more at risk of digital inclusion: older people, those on low incomes, and those in rural areas. The main issue with rural areas is the lack of decent broadband, which is analysed in 4.3.5.

Instead, we focus on two groupings of socio-demographic profiles:

- 1) Mature and older people; and
- 2) Working age on low incomes

Profiling in this way will identify clear target groups for any digital inclusion strategies. We can specify the numbers of households in each grouping and where these households are located to

potentially map against current provision to identify any gaps. In addition, these groupings will have their own needs when it comes to digital inclusion.

4.1.4.1 Mature and older people

This grouping was identified using the following variables: age (56+), Internet usage (less than every day) and attitude to new technology (do not like new technology).

This resulted in the 'mature and older people' grouping being comprised of the following Mosaic groups:

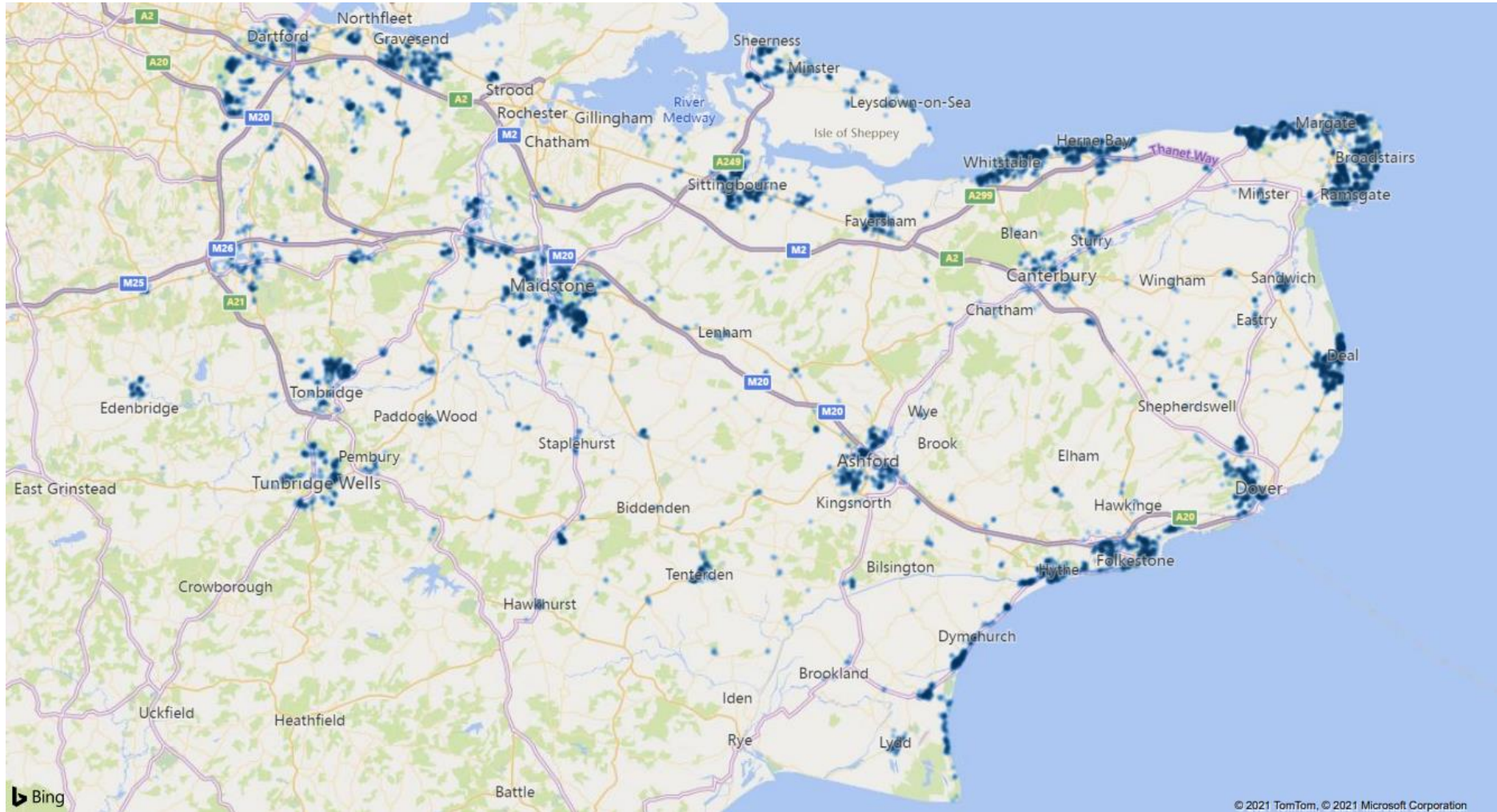
- Senior Security (Group F)
 - Elderly people with assets who are enjoying a comfortable retirement.
 - Key features: Elderly, comfortable homes, don't like new technology, low levels of Internet use, more likely to have a PC than other devices.
- Outlying Seniors (Type G27)
 - Pensioners living in inexpensive housing in out of the way locations.
 - Key features: aged 60+, low-cost housing, rural, low income, not likely to have devices, low levels of Internet use.
- Modest Traditions (Group K)
 - Mature homeowners of value homes enjoying stable lifestyles.
 - Key features: Mature age, affordable housing, modest income, don't like new technology.
- Vintage Value (Group N)
 - Elderly people reliant on support to meet financial or practical needs.
 - Key features: Elderly, living alone, low income, low technology use, need support.
- This grouping prefers to be contacted by post or landline.

The four groups/types in this grouping cover mature (Group K) and older populations (Group F, G27, Group N) with a range of deprivation from low (Group F), to medium (Group K), to high (Group N), and includes older people living in a rural locality (Type G27).

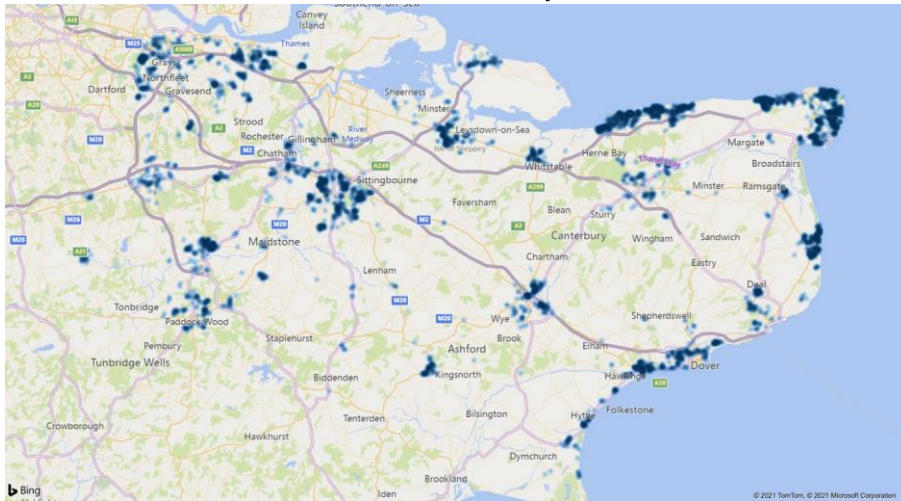
This grouping comprises 147,780 households (21.9%) in the KCC area. Figure 6 maps the distribution of these households across the KCC area with darker areas showing the highest concentration of households in this grouping. This grouping has higher densities around the main towns in Kent, but there are small clusters in the more rural areas and in coastal areas.

Figure 6. Map of the clusters of households who are in the ‘mature and older people’ grouping. The darker areas show the highest concentration of households.

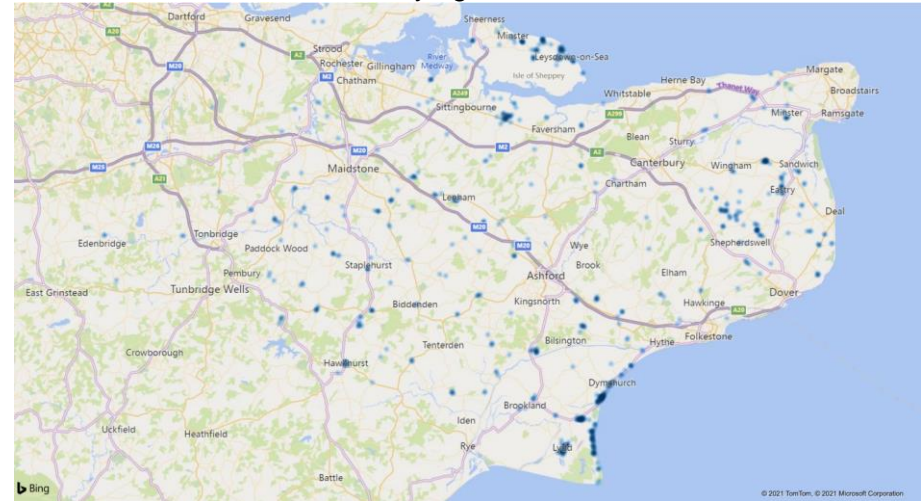
Mature and older people grouping



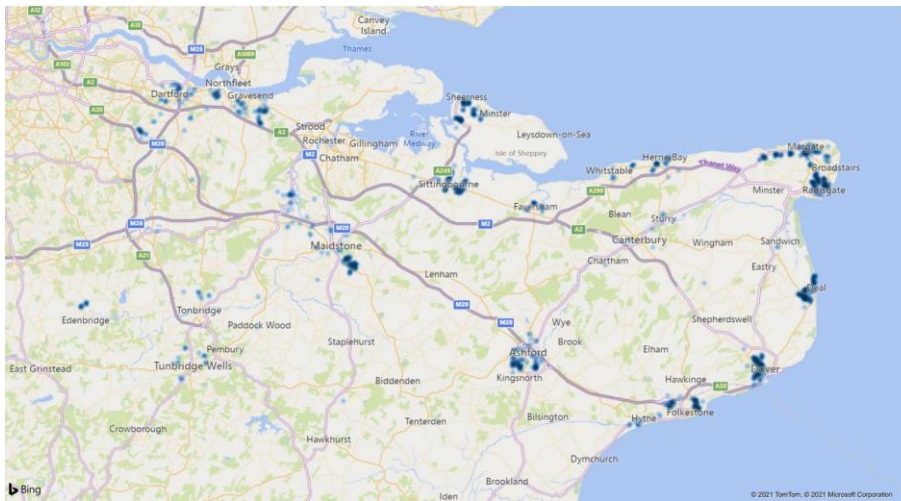
Senior Security



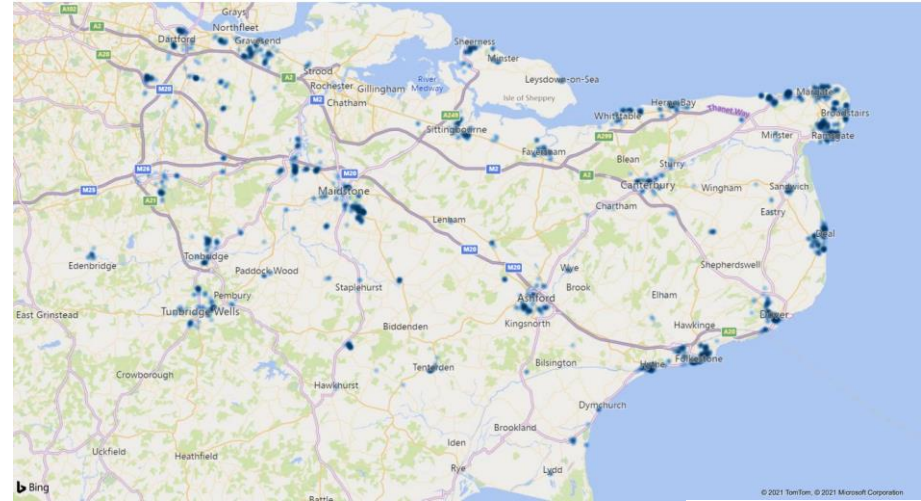
Outlying Seniors



Modest Traditions



Vintage Value



Source: Experian Mosaic 2019 Groups and Types⁷



4.1.4.2 Working age on low incomes

This grouping was identified using the following variables: age (18-35), high Index of Multiple Deprivation, low household income, employment status (more likely to be unemployed) and educational qualifications (more likely to have no qualifications).

This resulted in the 'working age on low incomes' grouping being comprised of the following Mosaic groups:

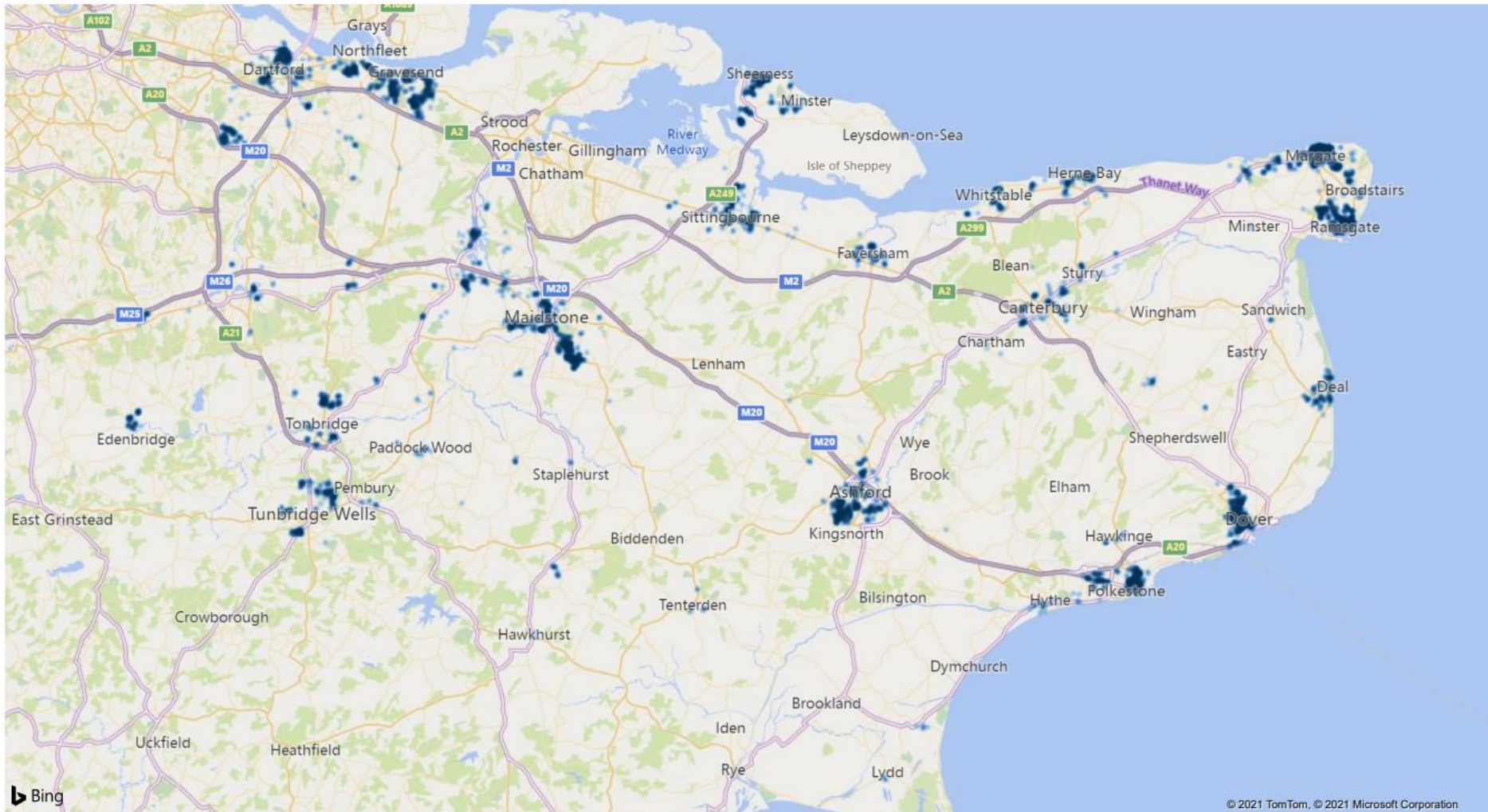
- Transient Renters (Group L)
 - Single people privately renting low-cost homes for the short term.
 - Key features: low income, access to the Internet.
- Family Basics (Group M)
 - Families with limited resources who have to budget to make ends meet.
 - Key features: families with children, aged 25 to 40, limited resources, have access to the Internet and devices but are less likely to keep up with new technology.
- Municipal Tenants (Group O)
 - Urban renters of social housing facing an array of challenges.
 - Key features: Social renters, low-cost housing, low income, few employment options, access only to a smartphone, low levels of Internet use.
- This grouping prefers to be contacted by mobile or email.

The three groups in this grouping cover single people (Group L) and families (Group M) both privately renting (Group L) and in social housing (Group O) with all groups having low incomes and living in more deprived areas.

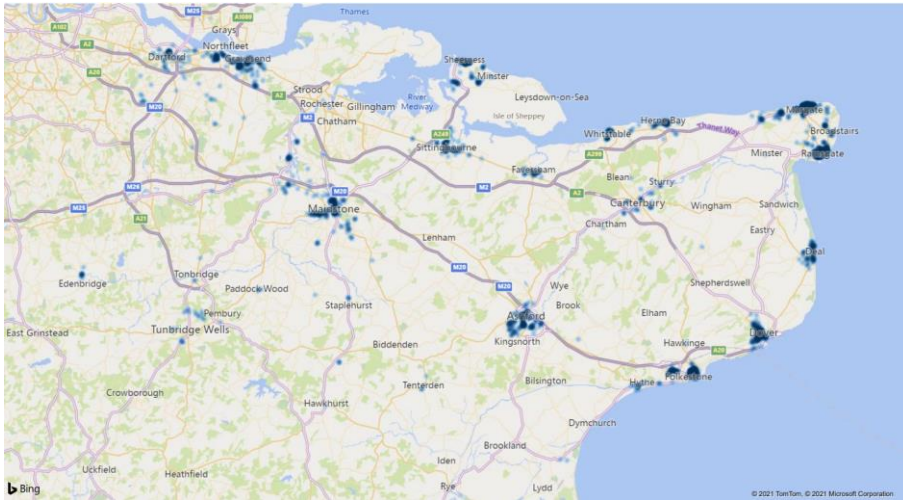
This grouping comprises 106,969 households (15.9%) in the KCC area. Figure 7Figure 6 maps the distribution of these households across the KCC area with darker areas showing the highest concentration of households in this grouping. This grouping has higher densities around the main towns in Kent, but there are small clusters in the more rural areas and in coastal areas.

Figure 7. Map of the clusters of households who are in the 'working age on low incomes' grouping. The darker areas show the highest concentration of households.

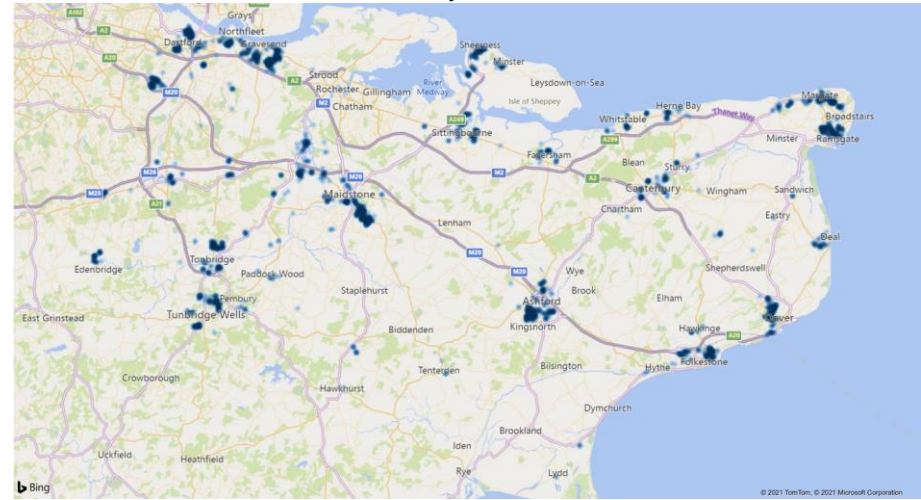
Working age on low incomes grouping



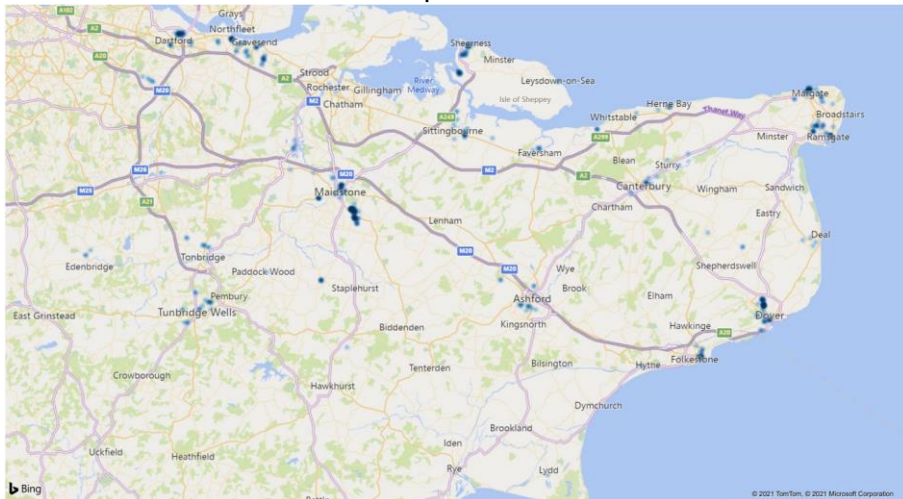
Transient Renters



Family Basics



Municipal Tenants



Source: Experian Mosaic 2019 Groups and Types⁷

4.1.5 Summary of findings

- The most deprived communities in Kent are much more unlikely to keep up with developments in technology, as well as older people and those in rural locations.
- Older people and those in rural locations in Kent are less likely to have access to technology.
- Affluent households are more likely to use the Internet several times a day, whereas the more deprived households tend to use the Internet roughly every day or sometimes less than that.
- Older people and more deprived households in Kent are more likely to use the Internet less than every day.
- Two groupings of socio-demographic profiles have been identified at risk of digital exclusion:
 - Mature and older people
 - Working age on low incomes

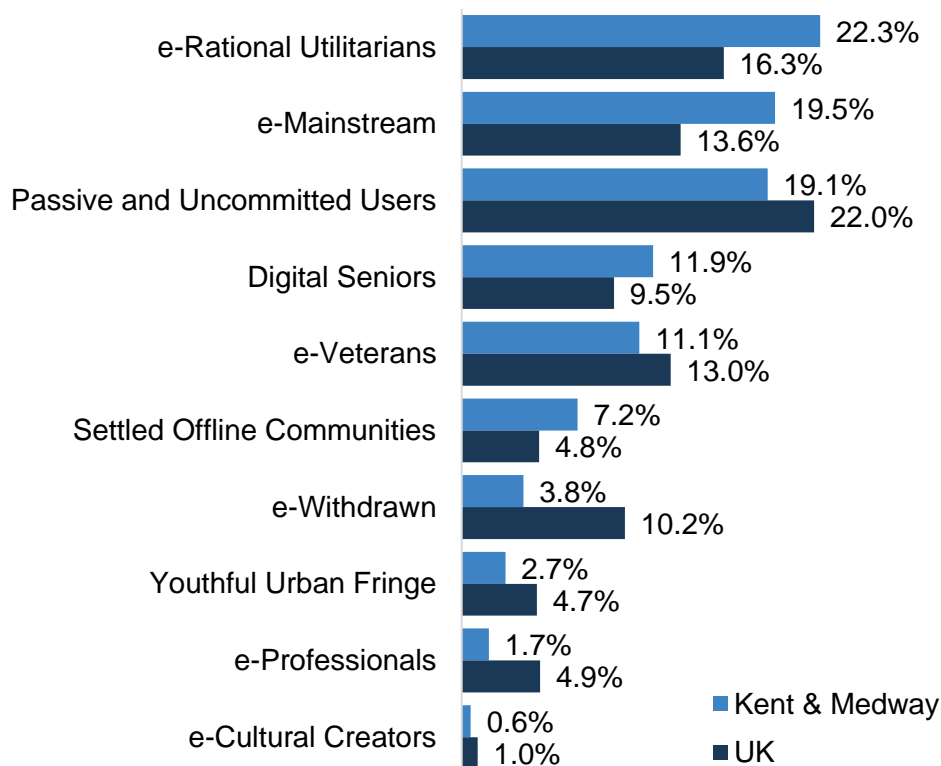
4.2 Internet user and engagement profiles

The 2018 Internet User Classification (IUC) is a bespoke classification that describes how people living in different parts of Great Britain interact with the Internet³. The 2018 IUC provides coverage for Kent at the LSOA level and provides 10 unique profiles of internet use and engagement (please see [2018 Internet User Classification](#) for descriptions of each group).

4.2.1 Engagement with the Internet

Figure 8 shows the proportions of LSOAs for each IUC profile for Kent as compared to the UK. Interestingly, Kent has fewer LSOAs classified as 'e-Withdrawn' than the UK. However, Kent has proportionally more LSOAs classified as 'Digital Seniors' and 'Passive and Uncommitted Users'.

Figure 8. There is a higher proportion of LSOAs classified as 'Digital Seniors' and 'Settled Offline Communities' in Kent as compared to the UK. There is a lower proportion of LSOAs classified as 'e-Withdrawn' in Kent as compared to the UK.



Source: IUC 2018³



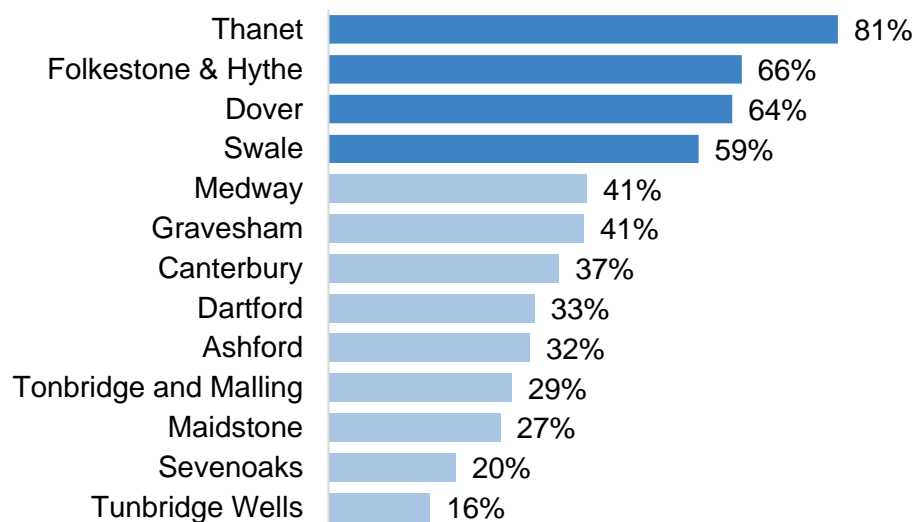
4.2.2 Digitally excluded profiles

The four key digitally excluded IUC profiles are:

- Digital Seniors
- e-Withdrawn
- Passive and Uncommitted Users
- Settled Offline Communities

In Kent, 42% of LSOAs are classified as one of the four digitally excluded profiles. Figure 9 shows that Dover, Folkestone and Hythe, Swale and Thanet have higher than the Kent average proportion of digitally excluded LSOAs.

Figure 9. More than 4 in 5 LSOAs in Thanet are classified as one of the four key digitally excluded profiles

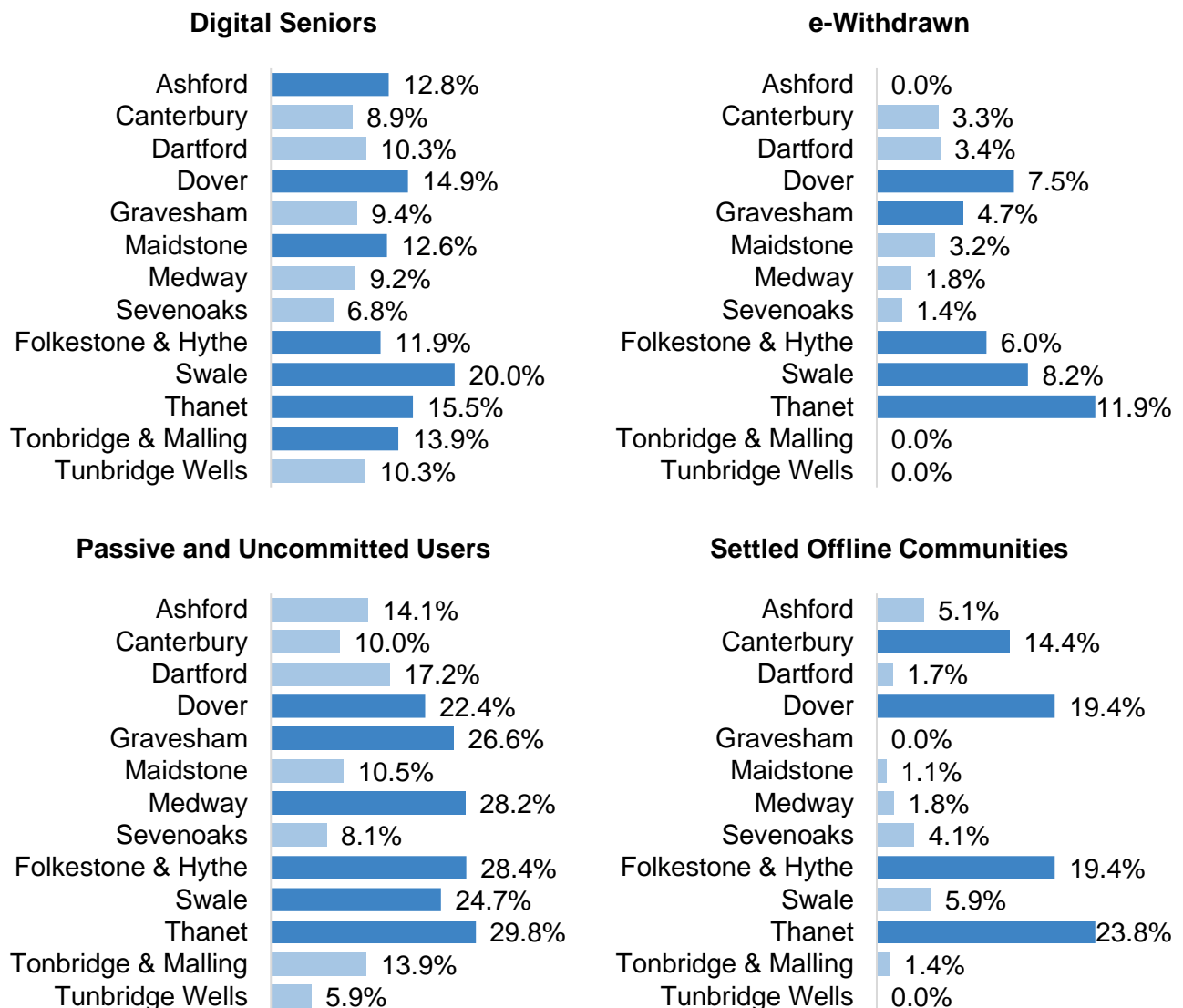


Source: IUC 2018³



Figure 10 shows the proportions of LSOAs in each district classified as one of these four digitally excluded profiles. This again reveals that Dover, Folkestone and Hythe, Swale and Thanet consistently have a higher proportion of LSOAs classified as one of the four digitally excluded profiles than Kent overall.

Figure 10. Swale has the highest proportion of LSOAs classified as ‘Digital Seniors’. Thanet has the highest proportion of LSOAs classified as ‘e-Withdrawn’, ‘Passive and Uncommitted Users’ and ‘Settled Offline Communities’.



Source: IUC 2018³



4.2.3 Summary of findings

- Kent has fewer LSOAs classified as ‘e-Withdrawn’ than the UK. However, Kent has proportionally more LSOAs classified as ‘Digital Seniors’ and ‘Passive and Uncommitted Users’.
- In Kent, 42% of LSOAs are classified as one of the four digitally excluded profiles. In Thanet, 81% of LSOAs are classified as one of the four digitally excluded profiles.
- Dover, Folkestone and Hythe, Swale and Thanet consistently have a higher proportion of LSOAs classified as one of the four digitally excluded profiles than Kent overall.

4.3 Mapping digital exclusion

A variety of data sets can be used to help understand and visually map differences in the distribution of digital exclusion between and within different areas. Kent Analytics have created a [Power BI report](#) that allows the user to further explore data related to digital inclusion in Kent.

4.3.1 Digitally excluded groups

We know from research on digital inclusion that particular demographic groups are more likely to be digitally excluded. A 'Digital Exclusion Score' has been calculated based on data relating to each of these excluded populations (see 6.3 in the Methods section for further information). These scores have been further divided into deciles and mapped in Figure 11. Decile 1 represents the 10% least likely to be digitally excluded neighbourhoods in Kent and Decile 10 represents the 10% most likely to be digitally excluded neighbourhoods in Kent.

Figure 11. Map of the pattern of likely digital exclusion across Kent at LSOA level. The darker areas are those most likely to be digitally excluded and the lighter areas are those least likely to be digitally excluded.

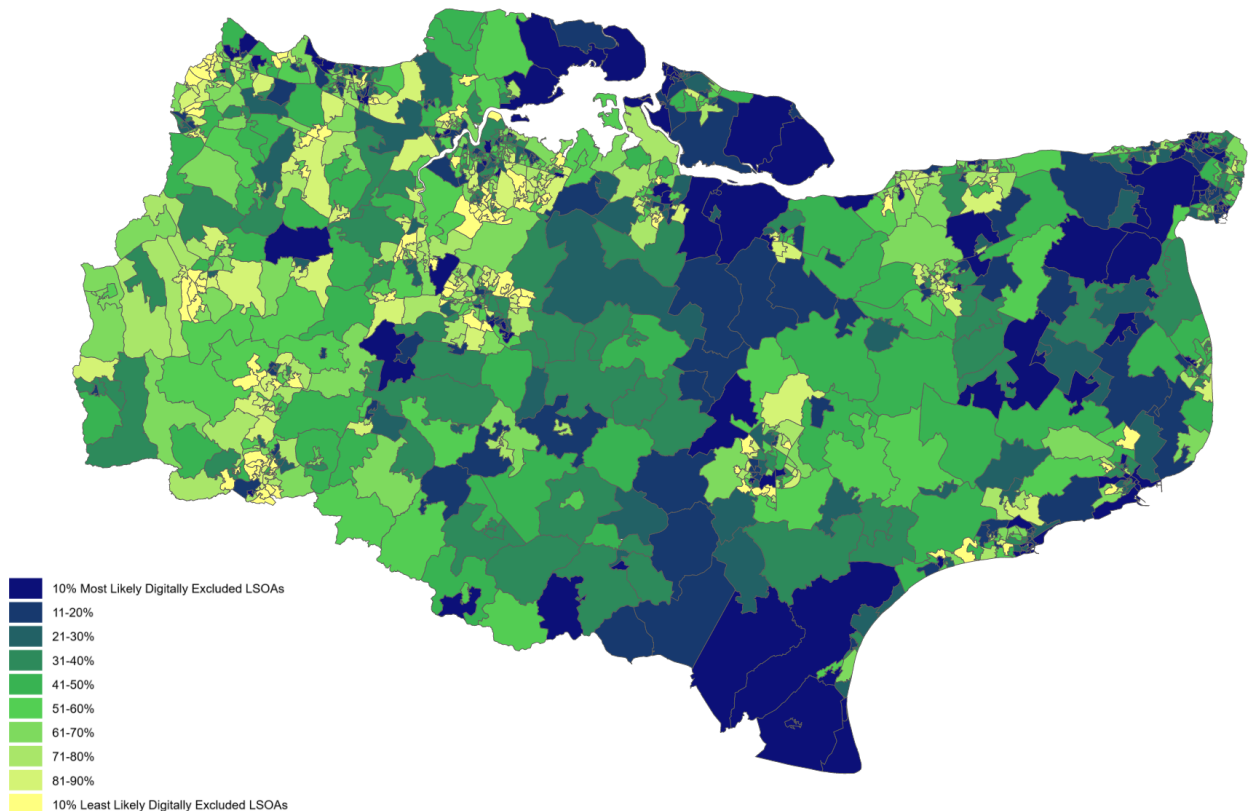


Figure 12 shows digital inclusion score and the proportion of LSOAs in 10% most likely to be digitally excluded neighbourhoods broken down by district.

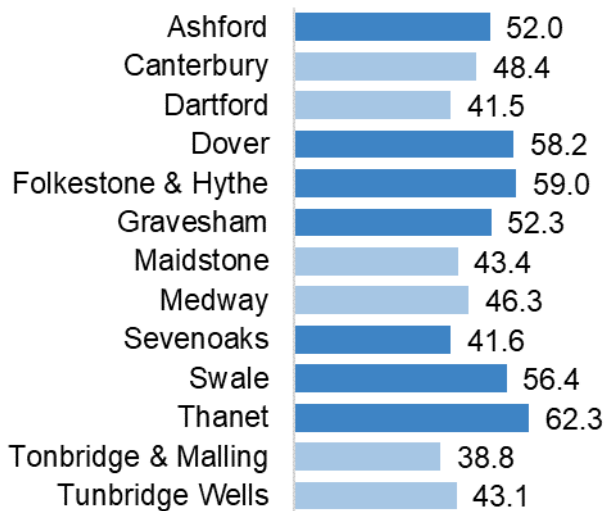
Thanet has the highest average digital exclusion score and the largest proportion of digitally excluded neighbourhoods. More than a quarter of LSOAs in Thanet are in the 10% most likely to be digitally excluded in Kent.

Dover, Folkestone and Hythe, Gravesham, Swale and Thanet are the districts with the largest proportions of digitally excluded neighbourhoods. Sevenoaks, Tonbridge and Malling and Tunbridge Wells are the districts with the smallest proportions of digitally excluded neighbourhoods.

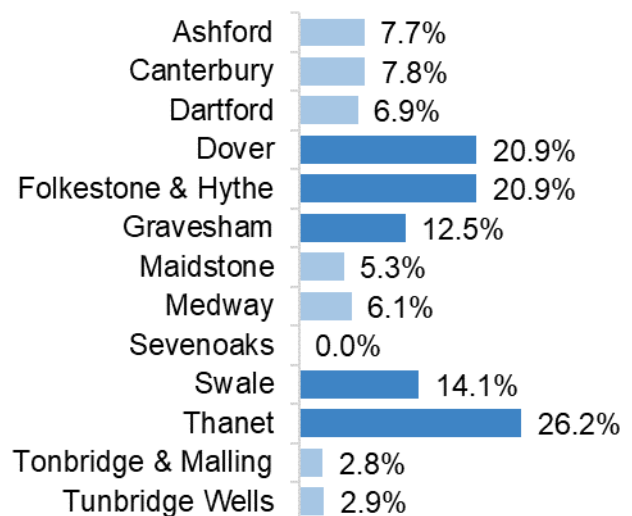
Tonbridge and Malling has the lowest average digital exclusion score. Sevenoaks has no LSOAs in the 10% most likely to be digitally excluded in Kent.

Figure 12. Thanet has the highest average digital exclusion score and the largest proportion of digitally excluded neighbourhoods, followed by Folkestone and Hythe, Dover, Swale and Gravesham.

Average LSOA Digital Exclusion Score by district



Proportion of district's LSOAs in 10% most likely to be digitally excluded neighbourhoods in Kent



Source: Kent Analytics and other data sources^{15,21,24,25,26} (see 6.3)

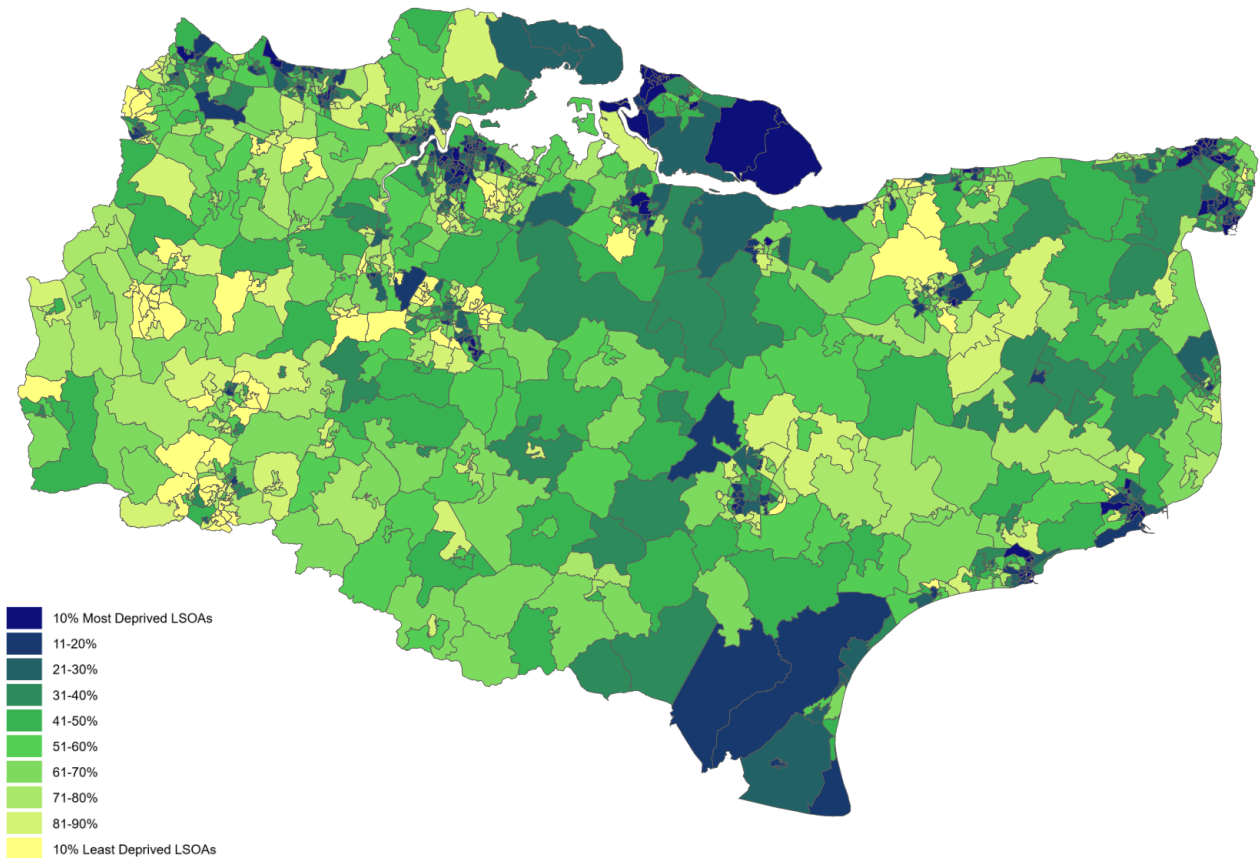


4.3.2 Deprivation

We know from research on digital inclusion that it can be seen as a form of inequality, with a strong relationship between digital exclusion and deprivation. The Index of Multiple Deprivation (IMD2019) is the official measure of relative deprivation in England. Kent Analytics produce a report on deprivation in Kent (see this [bulletin](#) for further information on the Index of Deprivation and how it relates to Kent). Thanet continues to rank as the most deprived district in Kent. Tunbridge Wells continues to rank as the least deprived district in Kent.

Figure 13 illustrates the pattern of deprivation across Kent and Medway at LSOA level. The darker areas are the most deprived areas and lighter ones are the least deprived areas. The map shows there is an east west divide with the east of the county having higher levels of deprivation than the west. The highest levels of deprivation can be seen in both coastal regions and urban areas.

Figure 13. Map of the pattern of deprivation across Kent at LSOA level. The darker areas are the most deprived and the lighter areas are the least deprived.



Source: MHCLG, IMD2019¹⁵

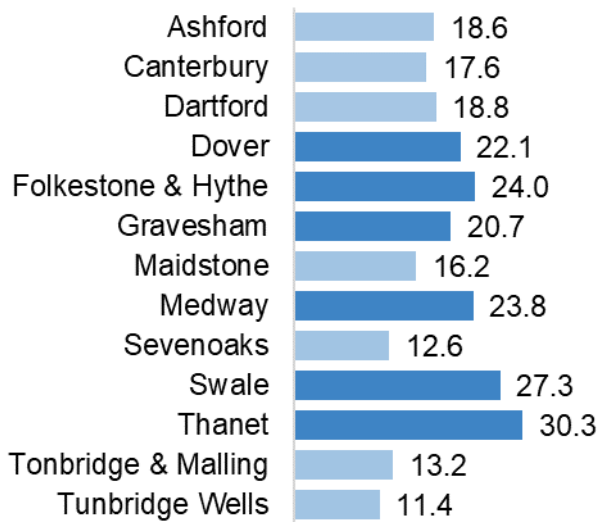
Figure 14 shows IMD score and the proportion of LSOAs in the 10% most deprived neighbourhoods broken down by district.

As already stated, Thanet is the most deprived district in Kent, with 2 in 5 LSOAs in Thanet classified in the most deprived neighbourhoods. This is followed closely by Swale.

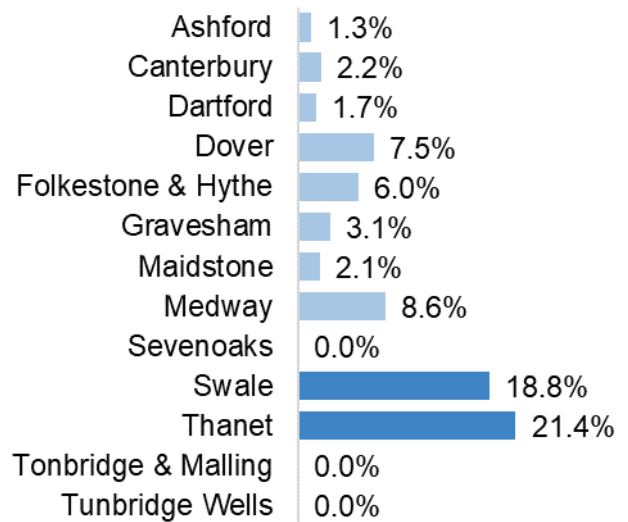
Tunbridge Wells is the least deprived district in Kent, with no LSOAs classified in the most deprived neighbourhoods (similarly no LSOAs for Sevenoaks and Tonbridge and Malling).

Figure 14. Thanet and Swale have the most deprived neighbourhoods in Kent. Sevenoaks, Tonbridge and Malling and Tunbridge Wells have the least deprived neighbourhoods in Kent.

Average LSOA IMD Score by district



Proportion of district's LSOAs in 10% most deprived neighbourhoods



Source: MHCLG, IMD2019¹⁵



4.3.3 Likelihood of responding digitally

The 2021 Census was undertaken using an online questionnaire as the primary response mode. The Office for National Statistics (ONS) recognised that people who are digitally excluded would require digital assistance or a way to respond to the Census that may not be via the primary mode. The ONS therefore developed a Hard-to-Count (HtC) index to identify sub-populations at the LSOA level at risk of Census non-response. This index is composed of two domains: the digital domain and the willingness to self-respond domain.

Table 2 shows the breakdown of the HtC index in Kent and for the UK as a whole. Overall, 20% of LSOAs in the UK are categorised in the hardest to count group (i.e., HtC3-5) compared to 16.4% of LSOAs in Kent. However, there is also a lower proportion of LSOAs in Kent categorised as most likely to digitally access the Census (i.e., HtC1).

Table 2. Kent has a lower proportion of LSOAs categorised as least likely to digitally access the Census (1 most likely, 5 least likely).

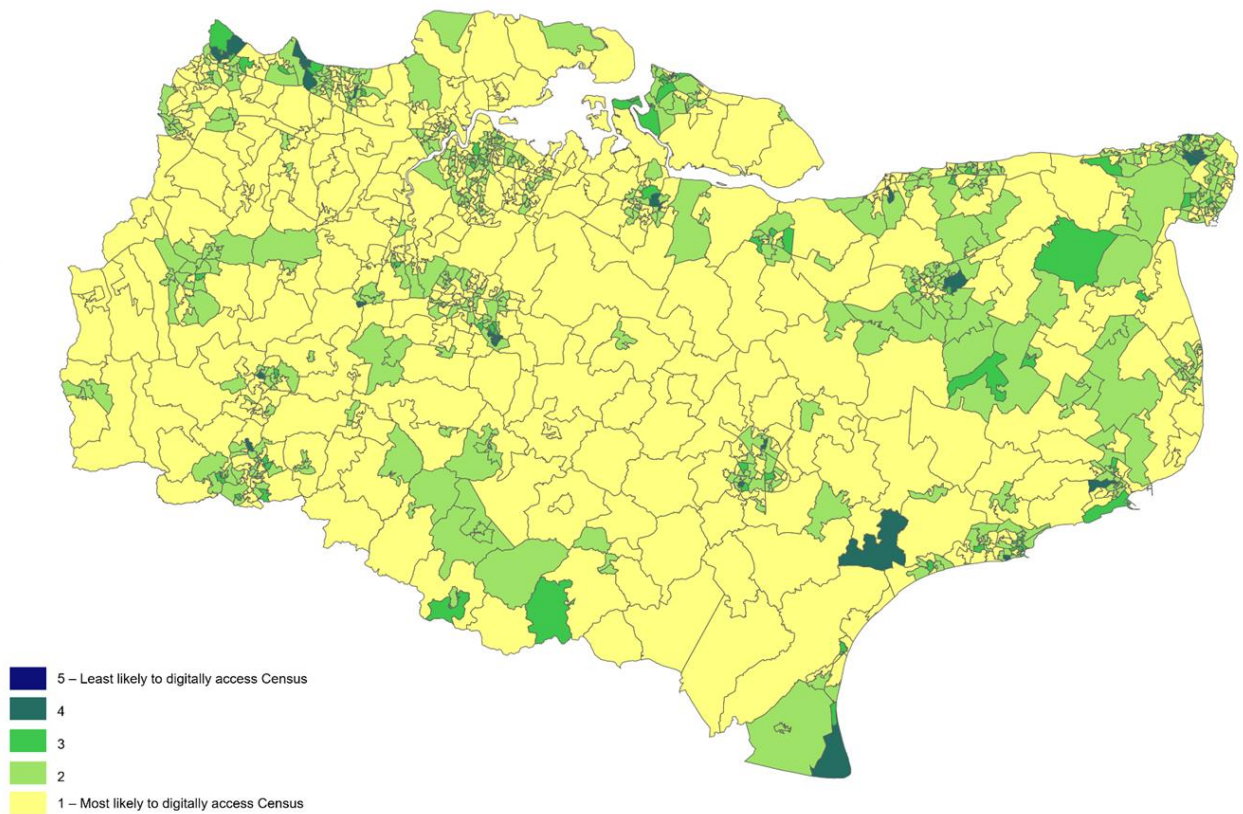
Hard-to-Count Index	Proportion of LSOAs in Kent	Proportion of LSOAs in UK
1	31.6%	40%
2	52.0%	40%
3	10.8%	10%
4	5.6%	8%
5	0.0%	2%

Source: ONS²³



Figure 15 illustrates the pattern of likelihood of responding digitally to the Census across Kent and Medway at LSOA level. The map shows clusters of LSOAs less likely to respond digitally in urban areas. Looking at the rural/urban classification in more detail, 9.8% of rural LSOAs are classified in the hardest to count group compared to 18.2% of urban LSOAs.

Figure 15. Map of the pattern of likelihood of responding digitally (Hard-to-Count Index) across Kent at LSOA level. The darker areas are the least likely and the lighter areas are the most likely.



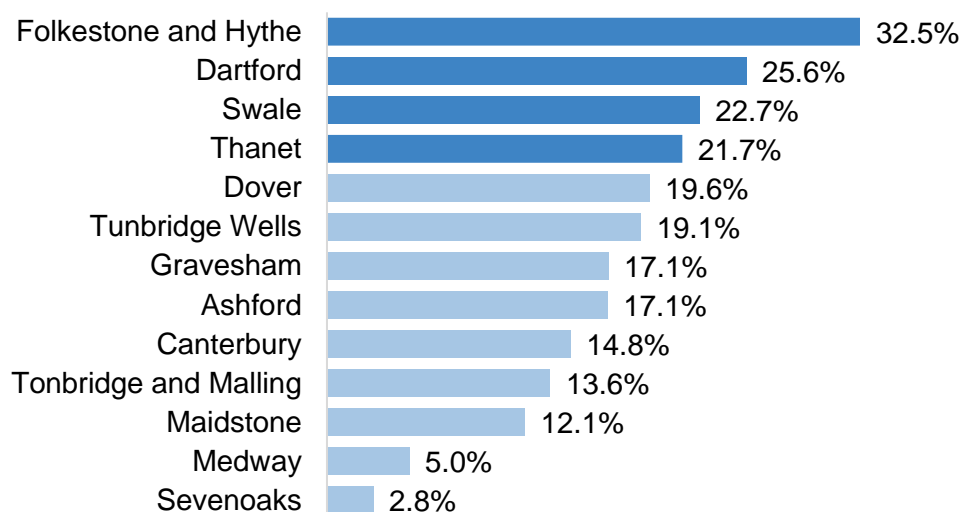
Source: ONS²³



Figure 16 shows the proportion of LSOAs categorised in the hardest to count group, i.e., less likely to respond digitally to the Census.

Nearly a third of LSOAs in Folkestone and Hythe are categorised in the hardest to count group compared with 20% in the UK, suggesting low levels of digital access in this district. This contrasts with Sevenoaks which has just 2.8% of LSOAs categorised in the hardest to count group, suggesting high levels of digital access in this district.

Figure 16. Nearly a third of LSOAs in Folkestone and Hythe are categorised in the hardest to count group, i.e., less likely to respond digitally to the Census. Dartford, Swale and Thanet also have higher proportions of LSOAs unlikely to respond digitally than expected.



Source: ONS²³

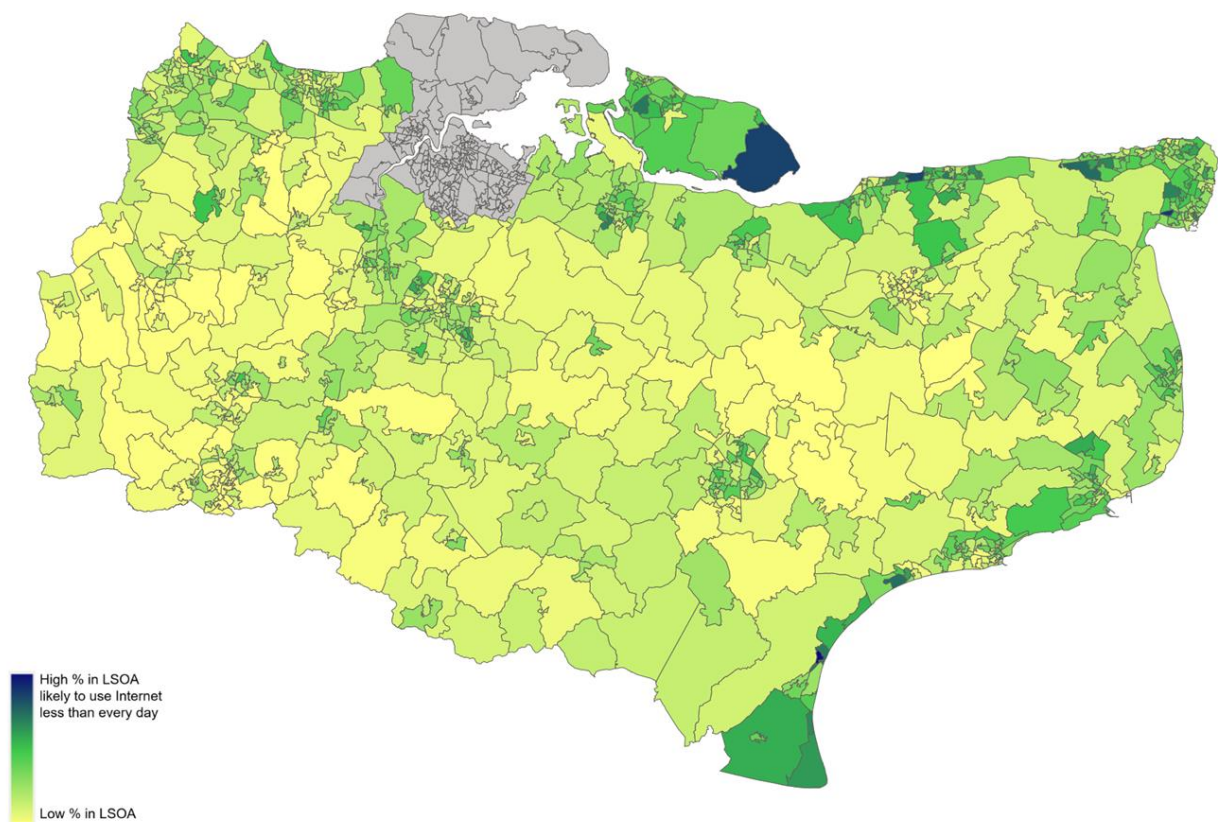


4.3.4 Lower levels of internet use

Using the Mosaic segmentation tool, we have calculated the proportion of households in an LSOA that are significantly likely to use the Internet less than every day (see [Experian's Mosaic](#) for further information about this tool).

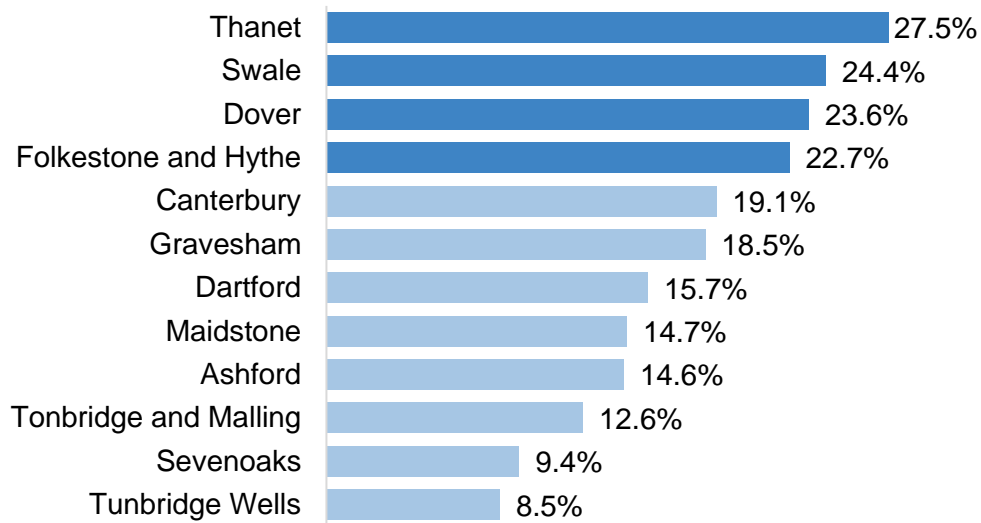
Figure 17 illustrates the pattern of likelihood to use the Internet less than every day in Kent at LSOA level. The map shows low levels of internet use in both coastal regions and urban areas. Looking at rural/urban classification of LSOAs in more detail, the average proportion of households likely to use the Internet less than every day is higher for urban LSOAs (19.6%) than rural LSOAs (12.8%).

Figure 17. Map of the pattern of likelihood to use the Internet less than every day across Kent at LSOA level. The darker areas are the most likely and the lighter areas are the least likely.



Source: Experian Mosaic 2019 Groups and Types⁷

Figure 18. Thanet, Swale, Dover and Folkestone and Hythe have the lowest levels of internet use



Source: Experian Mosaic 2019 Groups and Types⁷



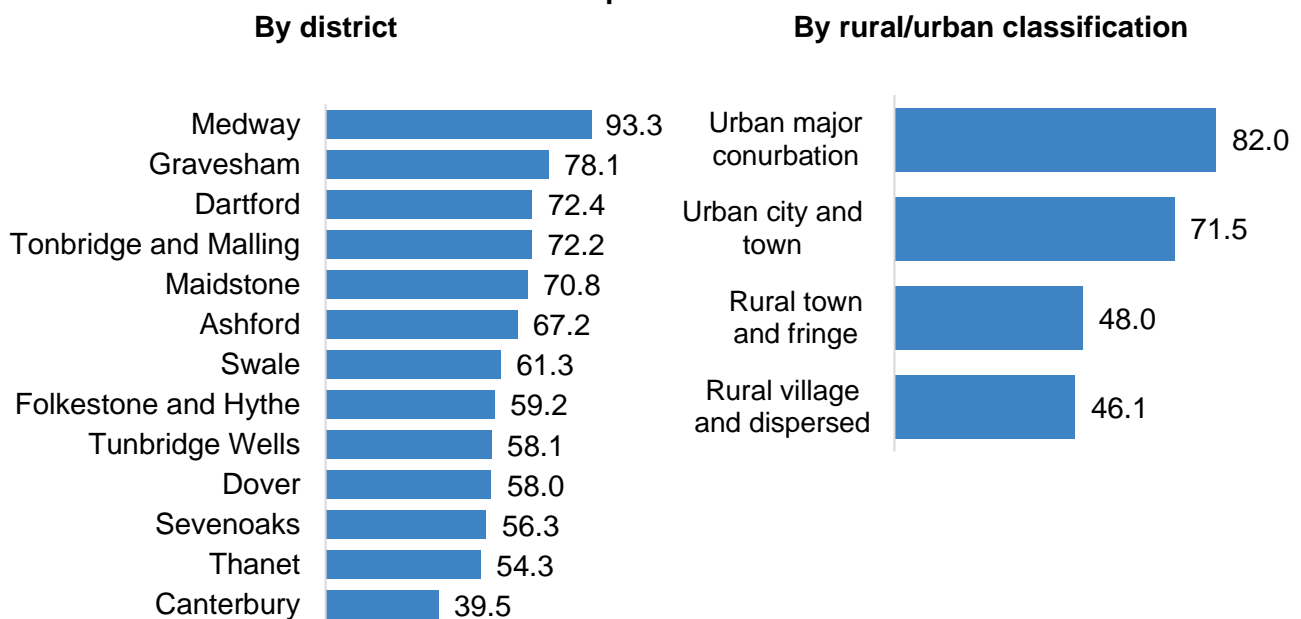
Figure 13 shows the proportion of households in an LSOA as significantly likely to use the Internet less than every day by district. Thanet, Swale, Dover and Folkestone and Hythe have the highest proportions of households significantly likely to use the Internet less than every day. Interestingly, over three-quarters (78.1%) of households in an LSOA in Folkestone and Hythe are likely to not use the Internet every day as compared to 0.1% of households in another LSOA in the same district, highlighting the marked disparity in Internet use across the county.

4.3.5 Broadband speeds and connectivity

An important element of digital inclusion is connectivity, i.e., having access to the Internet. The Government has defined a decent connection as one that can deliver 10 megabits per second (Mbps) download speed and 1 Mbps upload speed (along with other defined quality parameters).

The average broadband speed in the UK is 64Mbps. Figure 19 shows the average broadband speed per district (as an average by LSOA). Medway has the highest average broadband speeds (93.3Mbps) whereas Canterbury has the lowest average broadband speeds (39.5Mbps). There is also a clear divide between rural and urban LSOAs with urban LSOAs receiving an average broadband speed of 73.0Mbps and rural LSOAs receiving an average broadband speed of 47.2Mbps.

Figure 19. Canterbury, Thanet, and Sevenoaks have the slowest average broadband speed. Rural areas have much slower broadband speeds than urban areas.

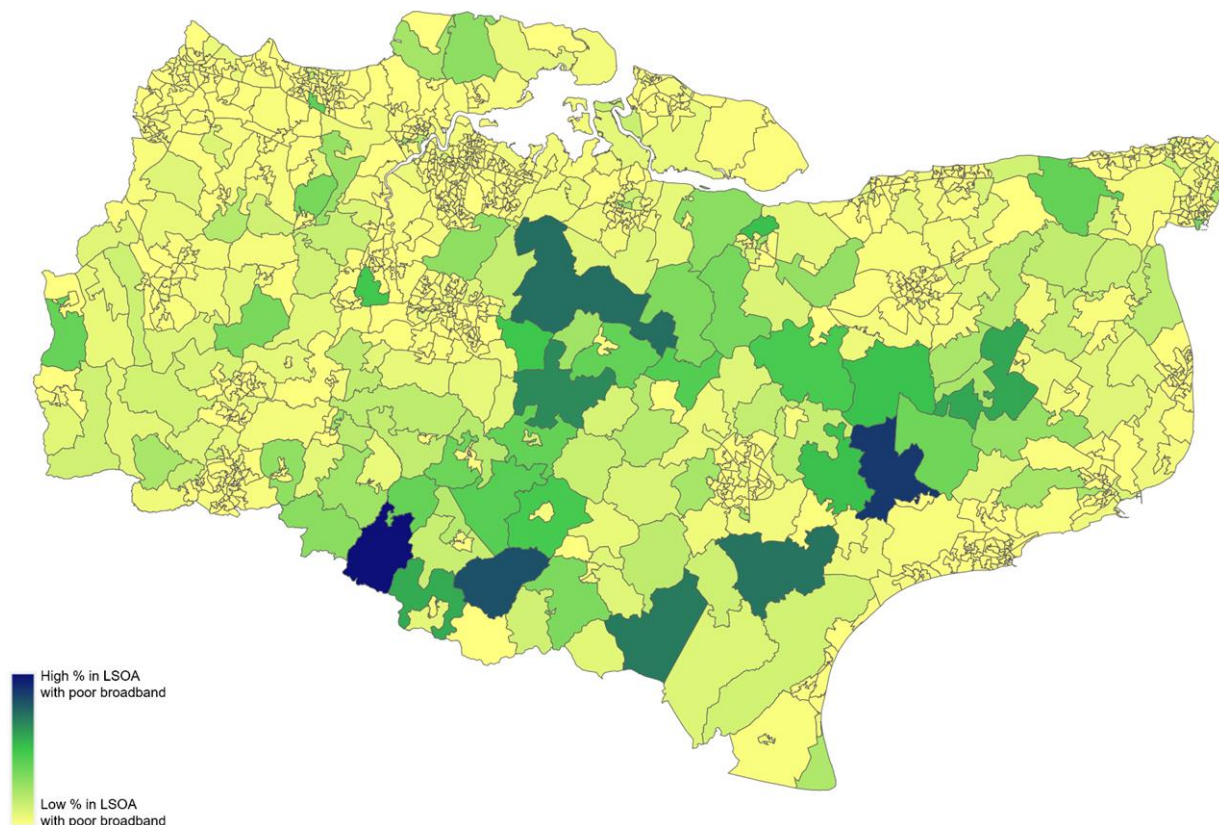


Source: Ofcom¹⁸



Figure 20 illustrates the pattern of proportion of households with poor broadband in Kent at LSOA level. The map shows a higher proportion with poor broadband in rural areas. The darkest LSOA on the map is an LSOA in Tunbridge Wells that has 14.2% of households receiving poor broadband compared to 0.5% of households in Kent. Again, there is a clear divide between rural and urban LSOAs, with 1.5% of households in rural LSOAs receiving poor broadband compared to 0.2% of households in urban LSOAs.

Figure 20. Map of the pattern of proportion of households with poor broadband across Kent at LSOA level. The darker areas have the highest levels of poor broadband and the lighter areas have the lowest levels of poor broadband.



Source: Ofcom¹⁸

4.3.6 Summary of findings

- More than a quarter of LSOAs in Thanet are in the 10% most likely to be digitally excluded in Kent. Thanet is also the most deprived district in Kent.
- Dover, Folkestone and Hythe, Gravesham, Swale and Thanet are the districts with the largest proportions of digitally excluded neighbourhoods and the most deprived neighbourhoods.
- Nearly a third of LSOAs in Folkestone and Hythe are categorised as least likely to respond digitally (a proxy measure of digital exclusion). Dartford, Swale and Thanet also have higher proportions of LSOAs unlikely to respond digitally than expected.
- Thanet, Swale, Dover and Folkestone and Hythe have the highest proportion of households that are significantly likely to use the Internet less than every day.
- Canterbury and rural LSOAs have slower broadband speeds.
- Sevenoaks, Tonbridge and Malling and Tunbridge Wells are the districts with the smallest proportions of digitally excluded neighbourhoods, the least deprived neighbourhoods, and the lowest proportion of households that are significantly likely to use the Internet less than every day. However, the rurality in Tunbridge Wells means that it ranks as the top district for households with poor broadband.

5 Conclusions

Digital exclusion can be seen as a form of social inequality with certain populations more likely to be excluded. There is a strong digital divide in Kent, with some areas more at risk of digital exclusion than others. We need to tailor any digital support programmes to the populations and the areas they take place in. We also need to consider making provisions for people not online. There should be support or an offline equivalent for people who may be digitally excluded.

Digital exclusion is likely to remain a problem in the long term. The nature of digital exclusion will also change. In the last 10 years, much of the focus has been about getting people online. In the next 10 years, it will be about helping people to keep up with new technologies and about what people can do online and how useful this is in their life. For example, many people may be able to make a video call but may not be able to access online banking. Any digital support programmes need to identify the skills requirements of the populations that they are aimed at.

6 Methods

6.1 Experian's Mosaic

Mosaic is a classification system designed by Experian to profile the characteristics of the UK population. Each household in the UK is classified as belonging to one of 66 types, which fall into a broader range of 15 groups, shown in the table below. These types and groups describe the resident of a household in terms of their typical demographics, their behaviour, their lifestyle characteristics, and their attitudes.

Table. Mosaic group summaries

A. Country Living (8.1%)	<i>Well-off owners in rural locations enjoying the benefits of country life</i>
B. Prestige Positions (9.5%)	<i>Established families in large detached homes living upmarket lifestyles</i>
C. City Prosperity (0.6%)	<i>High status city dwellers living in central locations and pursuing careers</i>
D. Domestic Success (8.7%)	<i>Thriving families who are busy bringing up children and following careers</i>
E. Suburban Security (8.0%)	<i>Mature suburban owners living in settled lives in mid-range housing</i>
F. Senior Security (10.2%)	<i>Elderly people with assets who are enjoying a comfortable retirement</i>
G. Rural Reality (6.9%)	<i>Householders living in inexpensive homes in village communities</i>
H. Aspiring Homemakers (11.9%)	<i>Younger households settling down in housing priced within their means</i>
I. Urban Cohesion (2.0%)	<i>Residents of settled urban communities with a strong sense of identity</i>
J. Rental Hubs (7.7%)	<i>Educated young people privately renting in urban neighbourhoods</i>
K. Modest Traditions (4.6%)	<i>Mature homeowners of value homes enjoying stable lifestyles</i>
L. Transient Renters (5.7%)	<i>Single people privately renting low cost homes for the short term</i>
M. Family Basics (7.9%)	<i>Families with limited resources who have to budget to make ends meet</i>
N. Vintage Value (6.0%)	<i>Elderly people reliant on support to meet financial or practical needs</i>
O. Municipal Challenge (1.6%)	<i>Urban renters of social housing facing an array of challenges</i>

Experian produces a Grand Index table showing the Mosaic profiles of over 400 variables, ranging from demographics, property, work/home lives, finance, perspectives, education, health, engagement and communication and online activity.

Using the index of each Mosaic group for each variable, it is possible to identify if they are more or less likely to be part of that variable. An index of 100 means that taking the group's population size into account, the expected number are part of that variable, whereas if the index is over 100, more than the expected proportion are part of that variable, and an index under 100 is less than expected.

For example, looking at the variable of a property with more than 5 bedrooms, the most affluent group A has an index of 429, meaning they are 4 times more likely to have a house with more than 5 bedrooms. Whereas the most deprived group O has an index of only 9, meaning they are very unlikely to have a house with more than 5 bedrooms.

6.2 2018 Internet User Classification

The IUC provides 10 unique profiles of neighbourhoods based on a number of characteristics. These profiles are described below.

e-Cultural Creators	High levels of Internet engagement, particularly regarding social networks, communication, streaming and gaming, but relatively low levels of online shopping, besides groceries.
e-Professionals	High levels of Internet engagement, and comprises fairly young populations of urban professionals, typically aged between 25 and 34. They are experienced users and engage with the Internet daily and in a variety of settings.
e-Veterans	Affluent families, usually located within low-density suburbs, with populations of mainly middle-aged and highly qualified professionals. Higher levels of engagement for information seeking, online services and shopping, less for social networks or gaming.
Youthful Urban Fringe	Reside at the edge of city centres and deprived inner city areas, ethnically diverse, young, large student and informal household populations, access via mobile devices. High levels of Internet engagement are average overall, with high levels of social media usage
e-Rational Utilitarians	Comprising mainly rural/semi-rural areas with higher than average retired populations, constrained by poor infrastructure. Users undertake online shopping, the Internet is used as a utility rather than a conduit for entertainment.
e-Mainstream	Exhibit typical Internet user characteristics in heterogeneous neighbourhoods at the periphery of urban areas or in transitional neighbourhoods.
Passive and Uncommitted Users	Limited or no interaction with the Internet. They tend to reside outside city centres and close to the suburbs or semi-rural areas. Higher levels of employment in semi-skilled and blue-collar occupations.
Digital Seniors	Typically White British, retired and relatively affluent. Average use of the Internet, typically using a personal computer at home. Despite being infrequent users, they are adept enough to use the Internet for information seeking, financial services and online shopping.
Settled offline Communities	Elderly, White British, in semi-rural areas. They undertake only limited engagement with the Internet, they may have only rare access or indeed no access to it at all.
e-Withdrawn	Least engaged with the Internet. Deprived neighbourhoods of urban regions. Highest rate of unemployment and social housing among all. Lowest rates of engagement in terms of information seeking and financial services, as well as the lowest rate in terms of online access via a mobile device.

6.3 Digital Exclusion Scoring

A 'Digital Exclusion Score' was calculated for each LSOA based on the identified digitally excluded populations¹⁷ and relevant data sources that could be determined at the LSOA level. A higher score indicates that an LSOA has more digitally excluded populations and is therefore more at risk of digital exclusion.

Indicator	Metric	Source
Older people	% over 65	ONS Midyear estimates 2019 ²⁴
Lower income groups	Index of Multiple Deprivation	MHCLG IMD2019 ¹⁵
Unemployed	% unemployment	ONS Census 2011 ²¹
	% Universal Credit claimants	ONS May 2021 ²⁶
Social housing	% in social housing	ONS Census 2011 ²¹
Disabilities	% daily activities limited	ONS Census 2011 ²¹
Fewer educational qualifications	% no qualification	ONS Census 2011 ²¹
Rural areas	Rural/urban classification	ONS Rural Urban Classification ²⁵
English not as first language	% whose first language is not English	ONS Census 2011 ²¹

Steps for calculation of the 'Digital Exclusion Score':

1. Metrics were reversed scored so that for all metrics, a higher score was better
2. Each LSOA was ranked from 1 to 1065 for each metric
3. This rank was converted into a rank ratio (i.e., converted to a score between 0 and 1)
4. The rank ratios were summed to create a composite score
5. This composite score was converted into an overall Digital Exclusion Score between 0 to 100

This method was used as opposed to alternatives (such as summing z-scores to create a composite) to minimise effects of variability on the scoring.

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