

Off grid



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# Off grid

People living off-grid, by inequality or choice, can exacerbate societal division or improve privacy, health and wellbeing. Either way, doing so provides fertile ground for innovation.

The world and humanity are unquestionably more connected than ever before. The Industrial and Technological revolutions have transformed our ability to both travel and communicate. From cars and planes, to email, mobile telephony and social media, the world has become smaller. According to Internet.org 90% of the world's population lives within range of a mobile signal and 3 billion people in 2015 are connected to the Internet. It's worth noting that this impressive statistic also means that 60% of the world's population has yet to be connected to the Internet.

Counter to this onslaught of increased possibilities to connect and remain connected a number of people are living off-grid. This has the potential to improve wellbeing or to further increase societal division and strain. It also provides new commercial opportunities for organisations that are willing to cater for the off-grid consumer.

There are three drivers behind off-grid living. The first and most obvious is inequality of access. The barriers to access are principally quality of infrastructure (can I get on?), affordability (can I afford to get on?) and relevance (is it relevant for me to get on?). Inequality of access applied not only to the Internet, but also to access to education and healthcare. A key consequence of inequality of access can be increased social inequality as the divide between the haves and the have-nots diverges. Thomas Picketty's *Capital in the Twenty-First Century* ably describes the evolution of inequality in our mostly capitalist world, while the UN's Sustainable Development Goal 10 is aimed squarely at reducing inequality within and among countries.

The second driver of off-grid living is the positive choice of individuals to be off-grid. Driven by economic, political, social, cultural, mental, trust and privacy concerns or other motivations, increasing numbers of people are opting or buying out. For many, as data becomes more ubiquitous, they are actively choosing to avoid the digital ecosystem or in some cases to hide from it. For others, this is about self-sufficiency and resilience. Being off-grid can be a permanent or temporal choice. Many individuals, families and communities now elect to be temporarily off grid, for example choosing a digital detox to cut down screen and web time, to improve social, health, wellbeing and educational outcomes. Increasingly governments are aware of the public health benefits of choosing to switch off, for example the US President's Challenge on screen time.

The final driver of off-grid living is the choice by some to be on-grid, but invisible. Drivers of this include privacy concerns or a desire to be un-contactable. It also includes those who are operating in the black economy or criminal worlds. One recent arena where this activity has grown significantly is access to and use of the dark web. The dark Web is a part of the deep Web that has been intentionally hidden and is inaccessible through standard Web browsers.

*Being off-grid can be a permanent or temporal choice.*

## Unequal access



For some, this is shifting the World Wide Web back to how it was originally envisioned: a space beyond the control of individual states, where ideas can be exchanged freely without fear of being censored. Although often characterised as a place where organized crime and paedophiles congregate, the majority of current users of the dark web are actually law-abiding citizens who simply don't want to be monitored and tracked to the extent that is now the norm on the public 'surface' web. While less than 0.03% of the size of the World Wide Web when counted by sites, the Tor network (as one type of the dark web is sometimes known – named after the underlying software) is used by millions of people keen to mask their IP addresses. Some see that, as increasing government monitoring becomes more widely understood and the value of personal data becomes visible, there will be a significant shift as more users migrate to the dark web. Experts at Chatham House, for one, see that, alongside providing an invisible communication route for criminals and terrorists, the

dark web empowers anyone who wants control over his or her online footprint. Ironically it may actually help protect children's online activity. Going forward it is the potential for anonymity which some see will attract more of us on the surface web to go dark.

Off-grid living provides both benefits and challenges. Key benefits include: reducing stress, increasing happiness, reducing environmental footprint, ironically increased connectedness (with the planet, those around you) and reduced cost. Regularly cited challenges are increased inequality. For example digital inequality of access creates division, with many studies showing that the digital divide exacerbates economic, social and democratic inequality, whether real or perceived. This division can lead to tension and instability between the haves and the have-nots, with organisations and movements developing to redress the balance (e.g. Occupy or, more controversially, Islamic State).

New commercial opportunities are already emerging in the provision of products and services for those for those who are choosing to live off-grid, from familiar brands such as Facebook opening presences on the dark web, to un-attributable payments with Bitcoin, to technology leaders such as Tesla creating batteries to power off-grid homes.

*The dark web empowers anyone who wants control over his or her online footprint.*

Looking forward, the intent, enshrined in many of the UN's Sustainable Development Goals, to ensure that "no-one is left behind", provides an incredible innovation opportunity for many. This could be around improving access through increased infrastructure investment or subsidy. Or ensuring that those that are left behind are shielded from social and political instability, worker strikes or the potential for increased mental health issues as hopelessness and unhappiness increases in groups that are left behind. It may also be about improving services to those who choose to be off-grid, from Amazon's drone delivery to hotels creating digital detox offers or employers providing opportunities for their employees to escape.

*The digital divide exacerbates economic, social and democratic inequality.*

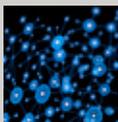
### Related insights

#### Caring for those left behind



Although significant progress has been made positive change has limited reach. Millions of people continue to be left behind from main-stream progress -especially the young, the poor and those who are disadvantaged.

#### Everything connected



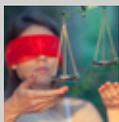
Over 1 trillion sensors are connected to multiple networks: everything that can benefit from a connection has one. We deliver 10,000x more data 100x more effectively but are concerned about the security of the information that flows.

#### The changing nature of privacy



As privacy is a public issue, more international frameworks seek to govern the Internet, protect the vulnerable and secure personal data: The balance between protection, security, privacy and public good is increasingly political.

#### Truth and illusion



The Internet has democratised knowledge and changed the nature of who we trust and why. As confidence in large organisations declines the search for trustworthy alternatives evolves. What we believe is changing how we behave.