

Who Needs 5G in Malta?

Article by Michele Kipiel

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Ultrafast networks that will connect devices, objects and people to an unprecedented extent are being rolled out across Europe. 5G internet will change our lives, reshape our homes and transform industries. Or that is how it is being sold at least. Writing from Malta, Michele Kipiel, argues that a democratic debate – over what 5G technology is for and who controls it – is vital and urgent.

As all major mobile operators in the EU slowly begin rolling out their high-speed 5G networks, public opinion on the continent is once again caught in the well-known deadlock seen in previous debates around controversial technologies. Following that tradition, people are now choosing their side, for or against, based on a single facet of the 5G problem: the supposed risks posed by high-energy millimetre waves to human health.

It would be presumptive to suggest that such polarisation is supported or induced by the corporate parties with a stake in 5G, but it undoubtedly serves their interests well. It may take decades of field research to assess the impact of 5G on human health. But focusing attention on a matter that is essentially unsolvable in the short term allows the parties that will profit from 5G networks to comfortably plan their future actions. Actions that will invariably be carried out in the name of unstoppable progress.

‘Progress’ is a magical formula under capitalism: it means nothing but has the power to move mountains. Once a staple of academic discourse in Western philosophy, the word progress was made into a sacred social principle during the 19th century by thinkers such as Auguste Comte, whose motto “*l’amour pour principe, l’ordre pour base, et le progrès pour but*” can be regarded as the battle cry of positivism.

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The word itself comes from the Latin *progredior*, to move forward, which seems like an excellent idea until one realises that, by itself, the act of moving forward carries no information on specific direction and speed. Nor does it provide any details as to where forward actually is. Capitalist propaganda quickly appropriated the term and wielded it as a hammer to squash all those who dared oppose the demands of the elite. So aggressive was the use of this newfound weapon that, over the past two centuries, Western audiences developed an almost Pavlovian reaction to it : if it’s progress, it must be good.

Progress, in the context of the current 5G rollout, means new developments, concessions, tax breaks, and innovation subsidies. All funded in some way or another using public money. It might not look like it, but 5G is a major political topic. And yet, as with nuclear power and GMOs, a solid assessment of 5G in terms of political and economic relevance is so far absent from public discourse. With some luck, such a debate can be triggered by dramatically shifting point of view. Let us no longer focus on health, but rather on three other facets of 5G: who

stands to profit from it, how is it going to affect our society, and whether a country as small as Malta requires 5G infrastructure at all.

Public cost, private profit

The European Union estimates that combined worldwide revenue of all 5G operators will be 225 billion euros a year by 2025. Faced with projected revenues like these, the expenses mobile operators are sustaining to acquire 5G licenses are comparatively tiny. Germany, the largest country and strongest economy in the EU, only managed to rake in 6.55 billion euros from four operators – a meagre 1.63 billion euros each – during this year’s auction of 5G licences. One might object that licence auctions are just one part of the equation, the other being an increased market for goods and services that will drive consumption and, therefore, tax revenue.

In a recently published report, researchers Colin Blackman and Simon Forge provide bearers of such hopes with a sobering reality check: “Despite the hype around 5G, the benefits in terms of economic stimulation from new services and products in GDP and employment will not be seen in any country for some time. There is a growing recognition, especially in Asia, that 5G will need much more time to perfect before comprehensive rollout, perhaps with a ten-year timeframe.” With its future benefits uncertain, the disproportion between current costs and expected future benefits for private mobile operators investing in 5G licenses is a cause for real concern.

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Adding insult to injury, 5G networks are likely to degrade existing public utility services such as satellite-based weather forecasts, making it hard or even impossible to determine water vapour concentration in the atmosphere due to wavelength interference. Such degradation might prove fatal for many in those regions of the world where accurate storm forecasting is a vital public service. Last but not least, it should not be forgotten that 5G hardware is mostly produced by Chinese manufacturers, which means massive streams of revenue will be channelled away from the European economy and towards East Asia. Not only this is likely to harm the struggling European tech scene, but it also has implications on the political, legal, and ethical levels.

This problem was highlighted in a 2019 report published by the European Parliament research service: “(...) since trust in equipment vendors depends heavily on the legal and regulatory system of the jurisdiction in which they operate and its extraterritorial application to them, it is not just about trusting Huawei or ZTE but about trusting China’s one-party regime. (...) Chinese companies and individuals are obliged under penal sanctions to cooperate in intelligence gathering under the Chinese National Intelligence Law”. As if having to trust the Chinese Communist Party was not troubling enough, the recent discovery of a major flaw in the 5G encryption protocol makes reliance on hardware produced in an authoritarian regime look even less appealing. Despite these risks, in October 2019 the German government bowed to industry pressure and announced that Huawei-produced hardware would be allowed as part of the country’s 5G network.

Following the most classic of capitalist schemes, the costs of 5G will be socialised, in the form of increased radio pollution, potentially catastrophic delays in weather forecasts, and heightened risk of foreign interference. While the overall benefits for the public are questionable, a small cohort of corporate entities will reap huge profits from both consumer and industrial applications of 5G. This state of affairs cannot be passively accepted.

Yes, streaming is cool, but have you tried missiles?

According to the marketing material distributed by operators worldwide, 5G will revolutionise our society in ways beyond our imagination. If you choose to believe the hype, 5G “will lead to a whole new Internet of Things, where everything from toasters to dog collars to dialysis pumps to running shoes will be connected. Remote robotic surgery will be routine, the military will develop hypersonic weapons, and autonomous vehicles will cruise safely along smart highways,” Sue Halpern from the *New Yorker* writes.

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‘smart devices’ to extract such precious data?*

The Internet of Things is one of Silicon Valley’s favourite buzzwords for good reason. As explained in *Isles of the Left*’s series on surveillance capitalism, companies like Google, Facebook, Microsoft, and Apple run on a business model that revolves around the relentless collection of personal information. This data is then fed to algorithms and transformed into frighteningly accurate predictions of behaviour. What’s better than always-on, always-connected, personal ‘smart devices’ to extract such precious data?

5G will enable surveillance companies to enact strategies of data gathering and behavioural control that are unthinkable using current technology. The effects of surveillance capitalism on political discourse are already plain for everyone to see – Donald Trump’s election, the surge of right-wing populism worldwide, and Brexit, to name a few. If there is one thing that is truly not desirable, it is 5G-enabled surveillance on steroids. However, corporate use of 5G is only half the story.

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increase the risk of strikes on civilian structures.*

Halpern’s almost casual mention of hypersonic weapons, currently under active development in Russia, China, the US, and France, sheds a light on 5G applications far more troubling than any connected toaster will ever be. Hypersonic projectiles are expected to be the “killer application” (pun intended) of the military’s rollout of 5G. Travelling at five times the speed of sound, these weapons will prove extremely hard to detect and counter using current technology. 5G network speeds are expected to become a vital asset in a scenario where “an aircraft carrier, a military base, or even a city, is going to have less than a minute to react to an incoming hypersonic missile.”

Needless to say, an international moratorium on hypersonic weapons would be much safer and cost effective than any 5G network will ever be, but the military-industrial complex obviously thinks otherwise. As if the threat of missiles travelling a kilometre per second was not enough, the military importance of 5G connectivity will also increase the risk of strikes on civilian structures given that 5G relies on a diffuse network of ‘microcells’ installed on roofs or masts to work properly. The introduction of a technology with such ample surveillance and military potential cannot be presented as a “harmless upgrade” to the existing (perfectly functional) mobile networks people use and enjoy every day.

What is 5G actually for?

Looking at a map of Europe, Malta is tiny. The islands cover a total area of 316 square kilometres. At 32 108 square kilometres, Catalonia is more than 100 times the size of the Maltese Islands. Despite the gulf in size, Catalonia is home to the largest citizen-owned public WiFi network in Europe and possibly in the world, Guifi.net. Faced with a lack of broadband access in rural areas, the citizens of Osona county began developing their own network in 2004 using off-the-shelf hardware, open-source software, and their ingenuity.

15 years after the first node was installed, Guifi is today a sprawling network made of 35 715 active nodes serving communities living along the Catalan coastline, the Basque region, and in Madrid. 19 500 more nodes are planned. Not only is Guifi a massive, distributed network, it is also a non-profit, commons-based project. Taking profit out of the equation allows Guifi to focus on what truly matters: accessibility, sustainability, democratic control, and community. The benefits of the Guifi network are vast and include better access to the internet, more quality jobs, more money staying in communities, less service disruption, and lower prices for end users.

Would it not be better to build a public, cooperatively-owned, nationwide WiFi network that is cheap, decentralised, inclusive, and harmless?

Imagine what Malta, a far smaller territory with no mountains or natural obstacles and a longstanding tradition of cooperative ownership, could achieve. Does Malta really need a new, expensive, centralised, inherently exclusive, and potentially dangerous 5G network? Would it not be better to follow Guifi's example and build a public, cooperatively-owned, nationwide WiFi network that is cheap, decentralised, inclusive, and harmless?

Should we ignore the warning issued by 180 scientists asking to halt 5G rollout until the impact of millimetre waves on human health is fully understood? Of course not. Preventing harm from untested technology is more important than ever in the age of unchecked Silicon Valley power. But focusing on health alone would be ill-advised as it places the burden of proof on the shoulders of the public.

What is necessary in the battle against hasty plans like 5G are strong arguments that shift the burden of proof away from the people and place it on the interested parties. The science may take decades to be in on the relationship between 5G and health. In the meantime, the industry can spend millions blasting their propaganda to silence dissent until their business is safe. Before that happens, the real debate should be about what 5G technology is for and whether Malta, or anywhere else, really needs it.

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