What are they doing with that analogue space?

Your TV white space could be used by mobile phone operators or filled with Wi-Fi frequencies. Here’s what the experts think.

THE UNUSED WHITE space that will be left idle once the Irish analogue TV signals are switched off are up for grabs says wireless communications expert, Professor Linda Doyle.

There is an opportunity for both consumers and the communications industry to utilise the 'white spaces' that will surround the new digital signals of the Saorview system which means that these frequencies could be used for "super wi-fi" spectrums.

In accordance with EU directives analogue TV must be switched off and it will be replaced with terrestrial digital TV. When this happens in October, there will be empty frequencies in the TV bands which she says could potentially be used for other services. Speaking to TheJournal.ie Professor Doyle of Trinity College Dublin said:

Frequencies or spectrum is a scarce resource. There is much demand for more frequencies as we use more data on our mobile phones so we need more and more wireless connections. The New York Times highlighted this issue, where wireless carriers have warned of a crisis in frequencies.

She said in next few years wireless carriers may not have enough frequencies or spectrum to meet the exploding demands of mobile data. The result, she warns, may be slower or spotty connections on smart phones and tablets.

The way I explain it is -- for instance, on New Year's Eve it can be difficult to get your texts or phone calls because more people are using the signal -- as we go forward and we are using more and more wireless devices and streaming videos it will have the same effect. We will be using a lot more wireless spectrums so there will be an increasing crunch and we need to find innovative ways of how to solve that problem. The quality of the frequencies will drop or lose quality the more they are overloaded so we need to find new frequencies -- the empty frequencies in the TV bands are of huge interest -- because the spectrum is so precious.

Professor Doyle said there has been a lot of discussion worldwide about how the spectrum can be used. "Some feel these frequencies should be made available just like the wifi frequencies are made available -- in a very open way with no need for a license. In contrast with this mobile phone operators need to spend large amounts of money buying licenses for frequencies -- the next Irish auction for 4G frequencies is at the end of this month for example".

She said there are technical challenges adding "TV broadcasters are not completely convinced that the new unlicensed systems in the empty spaces would not cause problems by leaking signals into the frequencies of the TV broadcasters -- such as causing interference".
She said that there is a strong feeling that open unlicensed frequencies lead to great innovation and opportunity.

Ireland is in a unique position to do a lot of experimentation because we don’t have a huge population and our spectrum isn’t overcrowded yet. “We are not really doing enough, we should be saying – lets do something different. Among the things that could be done in the TV bands – are larger hotspots (because the signals go further), rural broadband and machine-to-machine applications.

Trials to use these TV white spaces have taken place in the UK and the USA and both Ofcom and the FCC have developed regulatory policies for using the bands.

The Commission for Communications Regulation has of yet taken no action as to what to do in TV white space but Professor Doyle said they state they have longer-term future plans.

Centre for Telecommunications Value-chain Research (CTVR) is holding a ‘Filling the White Noise’ workshop later this month which Doyle says will be focused on spurring people to action. “The purpose of this event is to do more pushing by showing what is happening elsewhere and trying to get people to move on this” said Doyle.

‘Filling the White Noise’ workshop will take place on Wednesday 26th September in The Science Gallery, Trinity College from 10am-5pm.