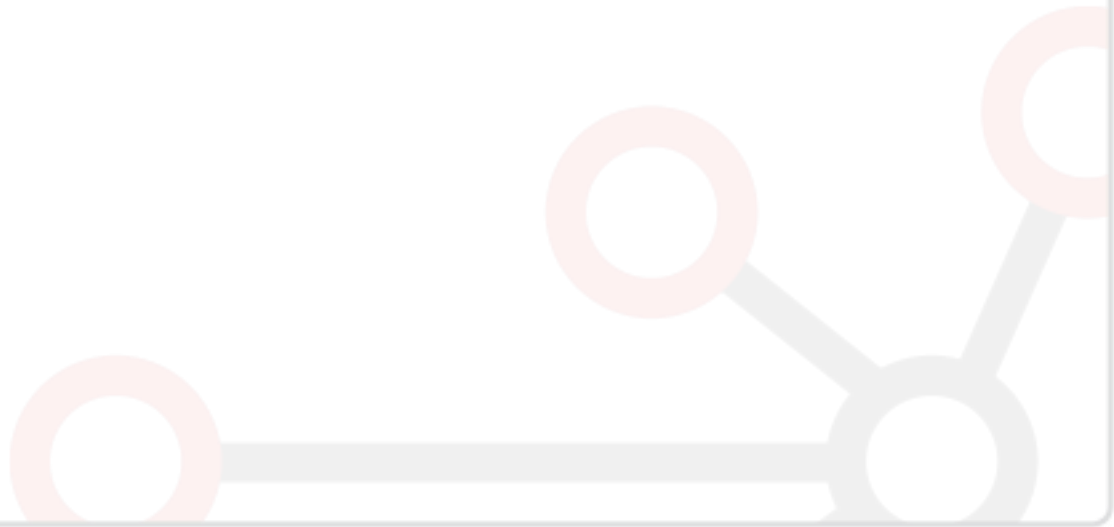


# **CONNECTED LIFE IN THE TIME OF CORONA**

Benoît Felten



# Who am I?

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- **@Fiberguy on twitter**
- **Independent broadband expert**
- **Specialized on FTTH strategies**
- **20+ years experience in the industry**
- **10+ years as a freelance consultant**
- **French (despite my lack of French accent)**
- **Living in Hong Kong**
- **Hot topics : universal broadband, wholesale, 10G and beyond**
- **Famous quote : 'if you build it they will come' never works**

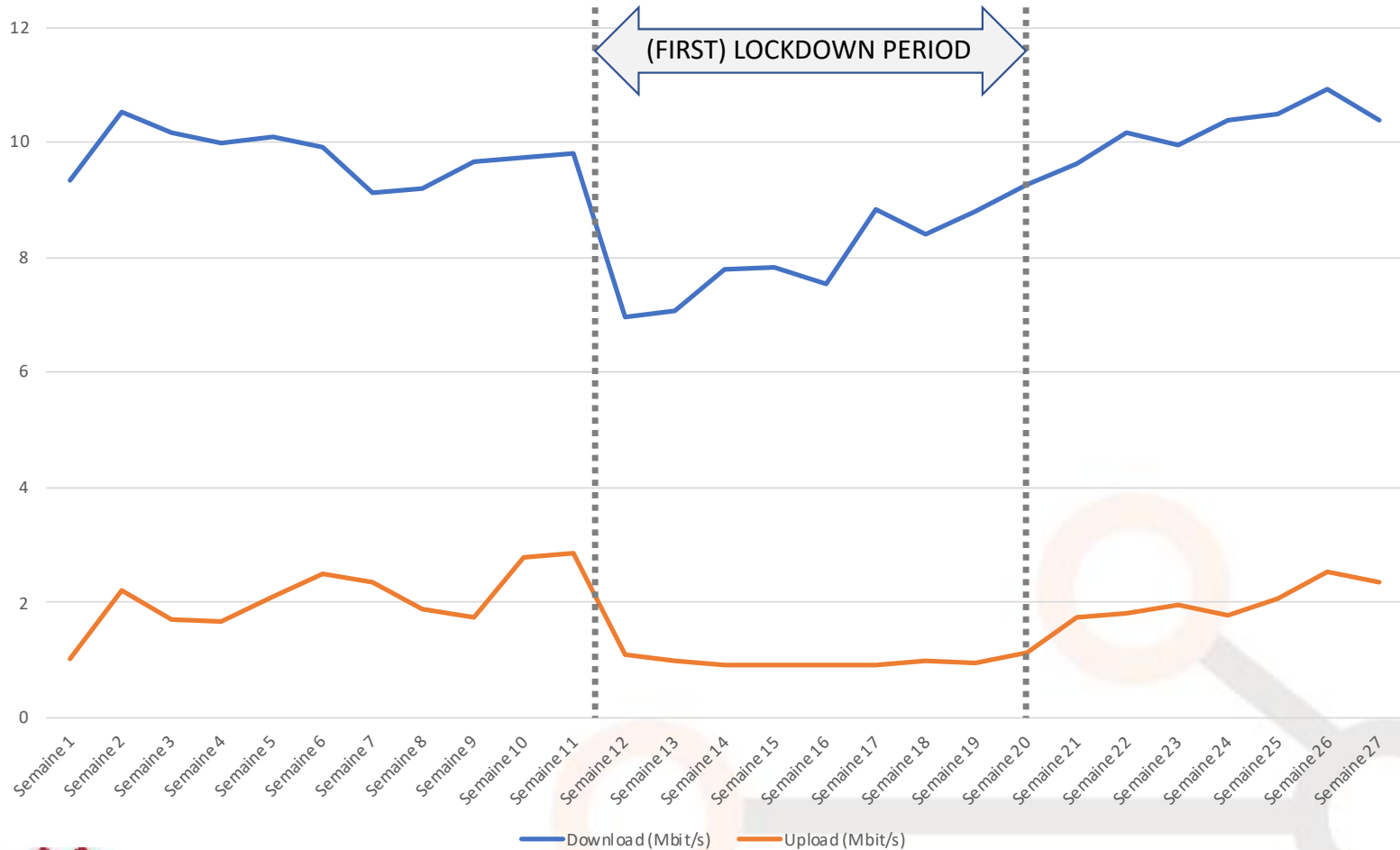
# What is this about?

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- The pandemic, and particularly the public measures and restrictions put in place to counter its spread have had **huge consequences** on both our personal and our economic lives.
- While there is no reason to rejoice whatsoever about the whole situation, we must acknowledge that the telecom industry has been **less impacted than others** and might even come out on top.
- The aim of this presentation is to examine the **measurable impacts during the first lockdown**, and draw **longer term lessons** about what they might mean.
- The data presented is drawn from a study Diffraction Analysis has done on the French market, but **data from other markets shows very similar trends**. Additional data from the New Zealand market was publicly released and will be shown. Some data shared anonymously will also be shown.

# Broadband Performance During First Lockdown

Average Speeds on Fixed Connections Measure in France in 2020  
(Source MLABS)



# What happened there?

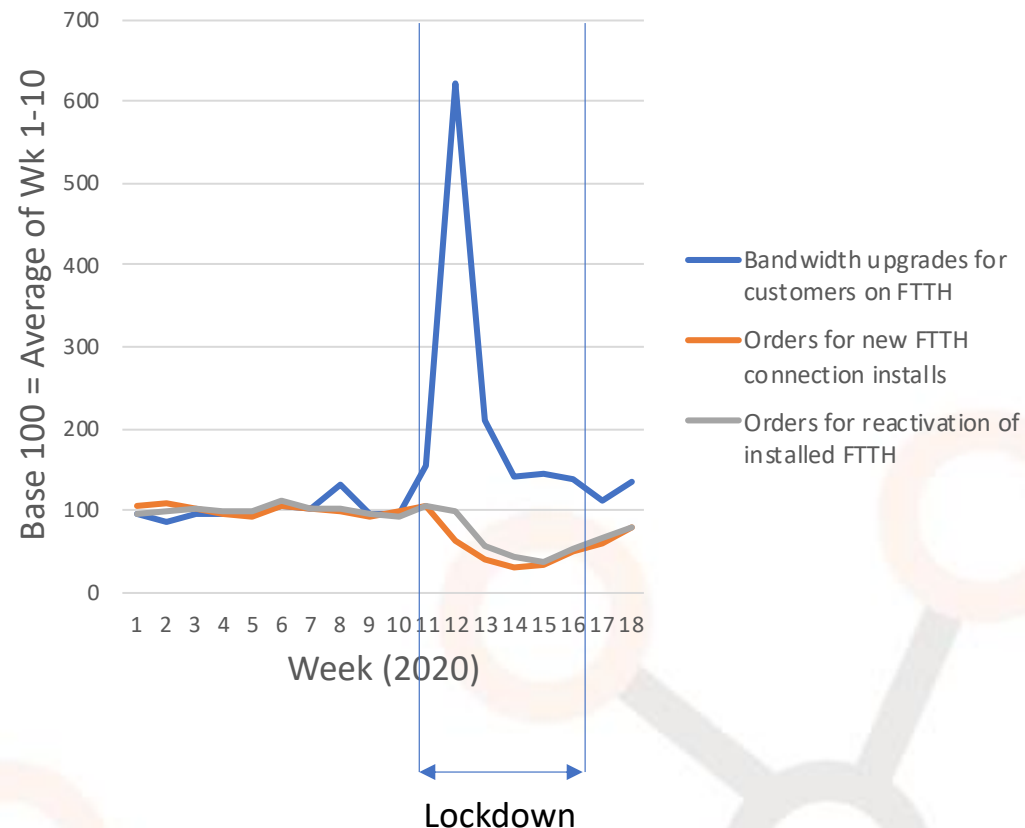
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- In the initial week of lockdown, average broadband speeds were knocked down **-20% on downloads** and **-30% on uploads**.
- This was due to **massive concurrent usage** in homes and during the day, very different from normal peak usage patterns.
- However, within a couple of weeks, performance was **nearly back to normal**. Why?
  - Broadband service providers **upgraded aggregation and core capacity** when saturation was seen;
  - Online service providers **proactively degraded content quality** to avoid network clogging
- The key conclusion is that despite massive increase in usage, **networks all over Europe held up**, and upgraded quickly to recover at least pre-lockdown levels during lockdown.

# What about FTTH?

- Most operators report that during lockdown requests for bandwidth upgrade shot up, and requests for new installations went down.
- This is due to customers needing more bandwidth but fearing physical interventions of technicians.

Orders for FTTH Upgrades and Installs During Lockdown (Anonymous Wholesaler)

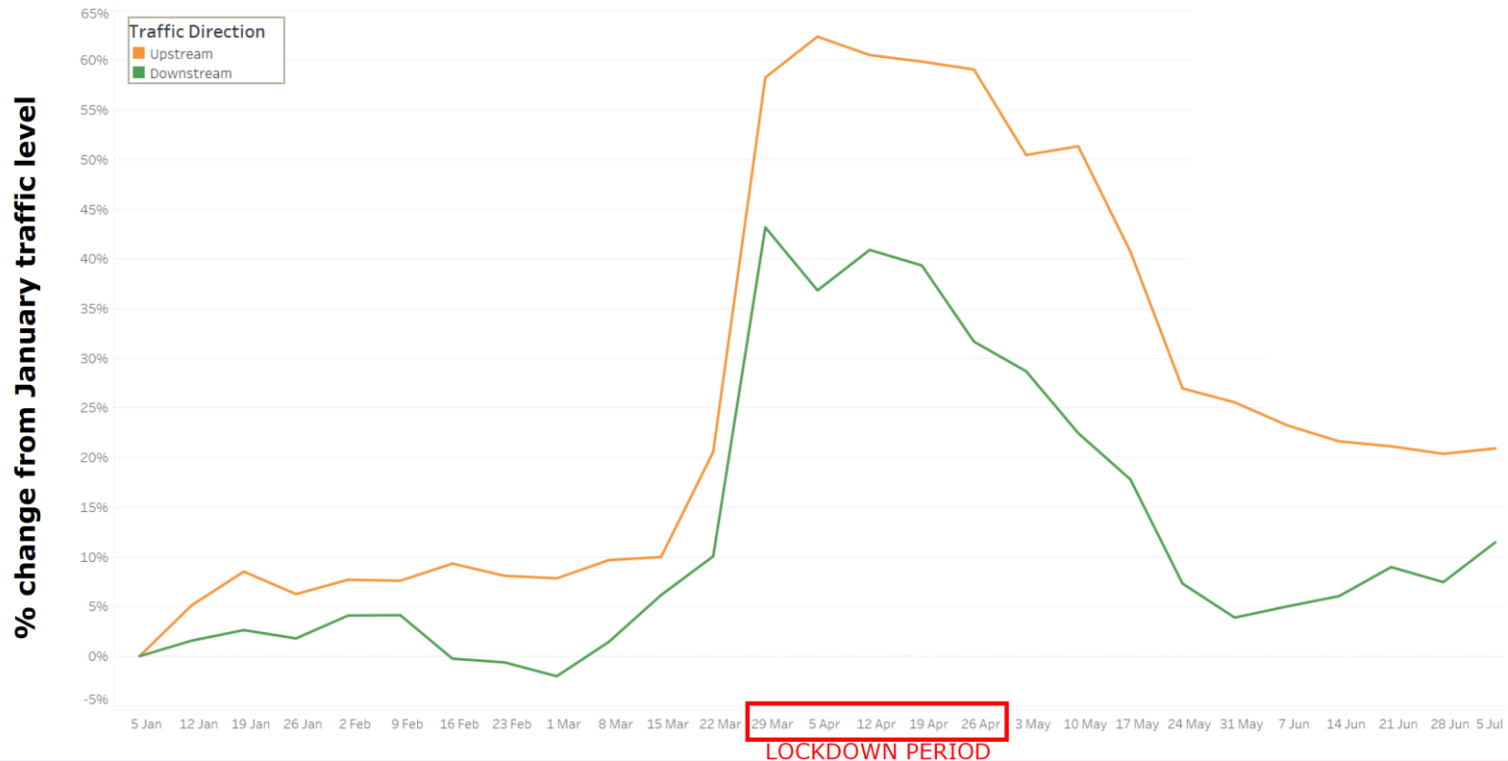


# What's going on there?

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- **Massive spike in upgrades requested from one week before lockdown. On 1st week of lockdown, requests for upgrades are 300% the usual rate. Things then flatten to about 40% above normal.**
- **Overall, over 8 weeks, the extra requests for upgrades are about the same as 8 months of regular upgrade requests.**
- **At the same time, requests for installs drop dramatically to about -70% two weeks into the lockdown. This is probably due to a combination of factors:**
  - a. during this period the operator was actually not allowed to perform home installs due to social distancing rules.
  - b. paranoia about outside contacts was likely at its peak during this period.
- **Reconnections in homes already installed with FTTH were also impacted, most likely due to home moves, which could not occur during lockdown.**

# Download vs. Upload



- **Chorus (NZ) published data showing demand for upload growing faster than for download during lockdown. This stayed true after lockdown by about 10% difference.**



# What about online services ?

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- The impact on online services is contrasted.
- Subscription based **content services have seen a massive positive impact:**
  - Netflix acquired over 25m new customers worldwide in S1 2020. That's 15% growth compared to 2% in 2019;
  - In France, 49% of household subscribed to a content offer at the end of S1 2020 compared to 36% one year earlier.
- **Advertising based content services have had less positive outcomes.** The economic crisis brought upon by lockdown has dried up advertising from retailers (who were closed):
  - Google was 10% below in revenue yoy at the end of S1 2020;
  - Facebook was less impacted because while average revenues went down, user numbers went up.

## In Summary

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- Network performance was impacted during lockdown, but the telecom ecosystem (operators and content providers combined) **managed to keep the networks up** and fix performance issues.
- During lockdown, the **demand for broadband services increased**, but the ability to deliver was constrained by social distancing measures. Operators with large installed FTTH base were the most able to respond to the demand increase.
- Sensitivity to **upload became more important** during lockdown as users were relying on more video-communication services.

# Lasting Changes?

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- Impact during lockdown is one thing, but what about the impacts going forward? It seems that some of these changes have lasting impact.

**A** Fiber uptake has increased significantly, with many operators reporting record connection rates in 2020.

**B** Many operators have refocused on fixed broadband, funneling investments initially planned for 5G.

**C** Operators are reporting heightened sensitivity from customers to performance issues, especially upload, latency and stability.

**D** Investors are less concerned about demand issues.

# Homeschooling, homeworking and videocomms

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- While the broader societal and economic impacts of the pandemic will take time to settle, there are some elements that we can safely predict:
  - **School will rely more on home broadband going forward:** while classes will resume (or have resumed) in person, homeworking and interactions will increasingly rely on online tools;
  - **Homeworking is here to stay:** businesses have been forced to embrace homeworking, and some have realized that it can work and save a lot of money. It won't be full time, but working from home will be a lot more frequent;
  - **Video-communications have become democratized:** many people who would rarely if ever use video-communications now know the tools and how to use them. New usages are emerging (zoom parties, family gatherings, kids doing homework together online, etc.)

# How to leverage this new normal for the better?

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- National governments and European policy makers should prioritize fiber broadband as part of the reconstruction efforts/packages that will inevitably be voted once we're out of the woods for good.
- Wholesale approaches should be favoured so that we get maximum coverage from public money invested. This is no time for infrastructure competition.
- Operators should accelerate rollouts on private terms and leverage new-found demand. Many business cases that were uncertain are now safe.
- Investors should be reassured that fiber infrastructure is a sound investment going forward, especially on a wholesale basis.