Get a buzz

Do you feel useful at work?
Feeling useful in your job
is still one of the easiest ways to find out what makes you tick and gives you a buzz day after day, like...

03 Being a role model for young women
that is what Sandrine is, a committed developer

06 Helping colleagues
like Sarah, a volunteer on the LetMeHelp project

07 Innovating in healthcare
to create the operating theatre of the future with Icham’s teams

08 What’s more, you’ll be spoilt for choice to find your field
What would you choose to feel useful?

10 Helping one another to grow
as Fatima and Rémi will tell you!

11 Hiring, even at a distance
... hear how it works with Eva and Axel :-(

12 Providing your internet connection
is Adam’s job, one of our shadow heros

14 Making a contribution to a major project
like Sarah, former apprentice in cybersecurity

“Yes, I’m a woman, and yes, women can be successful in tech”

With her soft-spoken but firm temperament, Sandrine works with her teams on telecom network data. Her work helps to reduce the energy consumption of mobile network antennas, to perform predictive maintenance on networks, and to fight against router hacking.

Sandrine always wanted to work in technical fields. “I wanted to work in IT, and that’s what guided me forward.”

She owes her commitment to gender equality to a particular event. While discussing students’ grades, a teacher said, “I studied science and yes, I’m a woman and yes, women can be successful.”

And no other teachers reacted. “It occurred to me that the best way to fight against that sort of prejudice was to go into schools and say, “I studied science and yes, I’m a woman and yes, women can be successful.” Sandrine works with an association called Elles Bougent (Women on the Move), which goes into schools to promote technical careers for women. She also works with a second association called Capital Filles (Girls Capital), which provides career guidance for young women. She mentors two young women every year. What guides her forward and makes her feel useful is actually quite humble. “I tell myself that if I can help even just one young girl to do exactly what she wants without having the weight of her family’s expectations, her teachers, or her friends (I know that some young girls are under tremendous pressure in that respect), then I’m being helpful.”

The company facilitates this type of commitment: the time she spends going to high schools and universities or meetings with the girls she mentors is done during working hours.

Today, Sandrine regrets the lack of female applicants when she hires employees for her teams. “If I were to give young girls advice, I would say to them: Don’t be afraid. Apply even if you don’t meet all the criteria! That girl doesn’t work, let her go, it doesn’t matter, she’ll find a good husband.

What drives her forward? Perhaps the model passed down from her mother who showed her what you can accomplish in work as a woman. And probably her own children. “I have daughters and I tell myself that everything I do, I do in part for them too, to pave the way for them for later, so that they can really do what they want.”

“Someone who knows a lot about a particular field such as IT, new technology, science fiction, or video games. Such enthusiasm, often misunderstood, is even more extreme among nerds and people with “no life”. This is why the term geek is often used pejoratively.”

Source: L’Internaute.

Here, we love geeks!

So, test your knowledge in these three key areas for the Orange group: artificial intelligence, development and the cloud. Less geeky but no less essential for us (and for you), test your network knowledge.

**Quiz**

**Are you a geek* or a geekette?**

**AI**

1. Which of these paintings by Rembrandt was actually painted using AI?
   - A
   - B
   - C

2. How can you correct AI development bias?
   - A By promoting diversity among developers
   - B By promoting diversity in learning databases
   - C By making algorithms more transparent, to understand what rules they obey

3. What do you call a software robot that can discuss on social media?
   - A A chatbot
   - B A halbot
   - C A hotdog
   - D A smart dog

4. Contrary to popular belief, what % of recruitments should be possible using AI by 2022?
   - A 1%
   - B 3%
   - C 5%
   - D 10%

5. In what direction will AI develop?
   - A Understanding and answering voice commands
   - B Understanding mistakes and improving
   - C Understanding the behaviour and principles of cause and effect

**Network**

1. What are the different telephone and internet network technologies?
   - A Copper, gold, silver
   - B Copper, ADSL, fibre, 4G
   - C Copper, fibre optic, microwave, coaxial, 4G and soon 5G

2. What does MVNO mean?
   - A Mobile Virtual Network Operator
   - B Multiple Virtual Network Operator
   - C Multiple Very Nice Operator
   - D Mobile Virtual Native Operator

3. For the same usage, 5G will be more energy efficient than other mobile networks... yes, but how much?
   - A Twice as efficient
   - B Four times more efficient
   - C Ten times more efficient
   - D A thousand times more efficient

4. In what country did Orange deploy 5G for the first time in 2019?
   - A Spain
   - B Poland
   - C Romania
   - D Slovakia

5. The networks of the future will be...
   - A virtual
   - B sedentary
   - C equipment-related
   - D no different from today’s networks

**Development**

1. True or false?
   - Three quarters of developers learn a new language or a new framework every year?
   - A True
   - B False

2. What OS do developers prefer?
   - A Linux
   - B macOS
   - C Windows
   - D iOS

3. What language did developers prefer in 2020?
   - A TypeScript
   - B Rust
   - C Python
   - D Kotlin

4. According to the 2018 Stackoverflow survey, how many developers feel obliged to consider the ethical implications of their code?
   - A 10%
   - B 30%
   - C 50%
   - D 80%

5. What is a developer’s most important skill?
   - A Roll-out experience
   - B Knowledge of algorithms and data structure
   - C Communication capacity
   - D Experience with tools and frameworks

**Cloud**

1. What does CNA stand for in software development?
   - A CoNtainer Application
   - B Customer No code Application
   - C Cloud Native Application
   - D Custom Network Application

2. What is a cloud native technology?
   - A The development of applications specifically designed from the beginning for the cloud
   - B The development of applications built with services packed in containers
   - C The development of automated applications in the Cloud
   - D The development of applications on the Orange Cloud network

3. Where is one of Orange data centres located?
   - A Douarnenez
   - B Limoges
   - C Val-de-Reuil
   - D Giverny

4. What is edge computing?
   - A Optimisation of exchanged data
   - B Hypercentralised processing
   - C The use of experimental technology

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Answers: 1 C - 2 A - 3 A - 4 C - 5 A

Answers: 1 C - 2 B - 3 C - 4 C - 5 A

Answers: 1 True - 2 A - 3 B - 4 D - 5 C

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Answers: 1 C - 2 B - 3 C - 4 C - 5 A
The other law of the jungle

Popular belief claims that competition is the only law of the jungle. Yet science shows that it is not the strongest that survive, but the most cooperative groups. As with prehistoric hunters, who could never have hunted a mammoth alone... Our ancestors survived, above all, because they knew how to work together!

A good example is LetMeHelp, a mobile app created during lockdown

In spring 2020, some Orange employees who found themselves with less work to do volunteered to support the customer service teams that were overwhelmed. An application was created within 15 days to connect those who wanted to help and those who needed it. Help, cooperation and selflessness, those are the real laws of the jungle.

During the lockdown, I volunteered half a day a week to answer customer calls. My motivation was really to lend a hand, and I found it natural to give up my time and lighten the burden on the advisors.

When taking a call, we had to introduce ourselves to the client and make it clear that we were not “really” advisers. In the end, the people who called were happy that we took the time to talk to them. They wanted to talk to someone other than the loved ones with whom they were confined. We took time to maintain a link with people. It also encouraged the members of the volunteer team to help one another. We helped each other with instant messaging, and got the answers we needed in seconds. There were back-up colleagues who were helping everywhere, all over France. In my department, just over six people participated. And even then, we talked to each other to get information, and we congratulated each other when we managed to answer questions. It brought us closer together too!

Designing the operating theatre of the future

Integrating research at Orange means contributing to useful projects like this one to improve liver transplants. There is no such thing as zero risk, but it is possible to minimise the risk and that is the whole objective of this Augmented Operating Theatre project (BOPA). We are working with AP-HP*, Institut Mines-Télécom and other sponsors on this state-of-the-art project.

Orange Healthcare is contributing to this through a sponsorship project, technical advice and the arrival of 5G. Three innovations form part of this futuristic operating theatre.

- **The Chatbot**: The chatbot will assist the surgeon, first by reading the patient’s file on the day of the operation, then by assisting the doctor with a step-by-step checklist through the transplant procedure.
- **Augmented Reality**: When the surgeon opens the abdomen, they can view the organ’s digital twin in real time and see the anatomy in colour-coded 3D to practice, secure and facilitate surgical procedures.
- **Video recording**: An innovative device controlled by the surgeon’s gaze will make it possible to film the entire operating field during the operation. Filming is useful for training new surgeons, improving practices and having support in the event of a dispute.

All of these devices require (and produce) large amounts of healthcare data that must be captured, securely transported, and stored for different purposes. This is also where Orange Healthcare can contribute all its knowledge on interoperability, healthcare data hosting,** cybersecurity, blockchain and 5G. Because of its low latency, 5G will notably allow the surgeon to operate on a patient using remote surgery!

* Assistance publique – Hôpitaux de Paris. ** HDS in French.
The tool we use most often is our brain. — M. X, pentester (aka the person who tracks security loopholes)

Software Defined network (SDN)
We have virtualised data centres with the cloud, and with SDN we are going to virtualise the networks. — Yann, services architect

Mobile financial services
AI is our biggest current and future project with Djingo, our first customer advisor using artificial intelligence! — Dimitri, Orange Bank distribution director

Cloud
There’s always a new challenge to meet the needs of our customers, and therefore to keep innovating. —舷, director of Orange Cloud for Business France

Data
We haven’t even scratched the surface of what AI and Big Data technology can do. — Maroua, data scientist

Customer relations
Customer relations are evolving. We’re completely rethinking our role. Now is the time to make it happen. — Pierre, customer relations manager

Healthcare
We have lots of discussions with healthcare professionals; everything comes from them, their needs. — Icham, healthcare innovation director

Consultancy
It’s very stimulating, a wide range of tasks and customers. — Marie-Cécile, customer relations consultant

AI
Beyond technological processes, I ask myself what we are going to be able to provide to people, and ultimately the responsibility we have to shape the future. — Catherine, UX designer

Network
There’s a significant amount of technological innovation. It moves fast. We are investing a lot in innovation to always stay ahead. — Yves, network strategy director

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Future of work
Orange is inventing the ways of working of the future. — Etienne, director of Orange Cloud for Business France

IoT
In the jobs market, there is significant and growing demand for people who understand this market. — Luc, marketing director

Submarine cables
Orange Marine operates 6 cable-laying vessels and 1 survey vessel from its marine bases or foreign ports. — Bénédicte, Orange Marine

5G
The next millionaire will be the person who discovers the system best suited to making the most of 5G. — Christian, 5G deployment team manager

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What field will you contribute to?
Fatima is on a "professional" contract to become a developer in AI and big data. Rémi has been her tutor for the past nine months. Together, they discuss what the apprentice/tutor relationship gives them and the sense of usefulness they get from their mission.

Tell us about your background.
Fatima - I’ve always enjoyed working with data. So, after studying economics and gaining experience in banking, here I am retraining to work in the field of AI and big data.

What did you like most about her profile?
Rémi - Fatima is curious, driven and motivated. So obviously that’s what I liked. We got along well together, and she felt the same way so she agreed to come.

So what do you do now?
Fatima - I program voicebots like Djingo. Now that I’m on the technical side, I really feel like I’m building something, it’s like something you make yourself and it works. It’s very rewarding.

In what areas have you seen her grow since the start of her apprenticeship?
Rémi - On a technical level, she was able to appropriate the technology behind the bots and their ecosystem, in development and design. She has learned so much already.

What is the most valuable thing Rémi has passed on to you?
Fatima - Rémi is an architect. He taught me the design, organisation, and construction method of a project as a whole.

And you Rémi, what have you learned from Fatima?
Fatima completed her apprenticeship within the framework of the “Microsoft AI School - Orange Class”, in partnership with Simplon.

- 7 months of intensive training
- 1 year work-study programmes at Orange

And together, we thought about afterwards... how we could take the use of voicebots even further.

How do you feel useful today in your job?
Fatima - I am involved in research and innovation at Orange on the subject of bots. And these initiatives may one day be used for use cases in social areas, healthcare, or education.

Interested?
Apply on orange.jobs
Hello, I've got a problem.

I'm sending over a technician!

Coffee before starting the day

Hello, I'm Adam. I've been a business maintenance technician for 5 years in the Seine-Saint-Denis department.

I go to the warehouse to pick up the equipment need

I meet my trainee. We are working together so he can learn skills on the job.

Networks also involve working high up in the mountains in extreme conditions. Here, at 3,842 m altitude and -28°C.

I set up three tills in a small shop.

I migrate a system from copper to fibre.

I go to the barn to install a back-up router and restart the broadband.

I quickly replace the faulty telephones and set them up.

24 hours with a maintenance technician

Hellooooo??!

Time chatting with my trainee

Hello, I've got a problem.

I'm sending over a technician!

Networks also involve working at the bottom of the ocean using a robot to repair a cable.

Networks also involve working at the Tour de France with its 350 technicians making 6,300 hours of broadcasting in 190 countries possible.

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Blackjack

Hello, I’m Sarah, and in my first life I was a casino dealer.

I went back to school on a work-study programme in cybersecurity. It was during this experience that I had the opportunity to lead a great project which led to me being hired as a cyber analyst. Let me tell you how I dived in at the deep end...

12 May 2018
Cyberattacks
Significant attacks took place via a ransomware called Wannacry.

13 May
Poker face
During a customer meeting, a sales representative was asked about the Wannacry attacks, “What do you recommend we do?” No answer...

14 May
The idea
Eric, my boss, picked up on this mishap and launched the idea of developing a much more effective crisis information tool.

July
Card!
I went to see Eric and I told him, “I’ve studied development. I’d like to do security and development, combine them actually.” That’s how I took on the project.

August - November
Prototyping
I’m working on the design and prototyping phase. Every two weeks, I present my work to the boss to obtain a proof of concept.

December
The dealer’s turn
I explain the specifications. Another important job is the architecture to secure the servers in the event of an attack. It was crazy, and complex.

5 March
Client requirement
The customer surprises us with a technical requirement out of nowhere :) It’s quite complex. We test several approaches, going back to find the right way to do it.

4 March
Ace of hearts
This is the home stretch because I get hired at the end of my work-study programme in September. We have to get it done... and we did! With Gwenole, who is definitely an asset, we finalise a version that works.

1st March 2019
Gwenole joins the team
He tests various technologies to select the most relevant one.

The technical challenge
Typically, applications communicate through APIs. These are popular targets for hackers. To reduce the attack surface, we had to come up with a different way of doing things.

May - June
5-player challenge
The team is growing, which allows us to meet many technical challenges this month. We are starting to develop on the back end and the front end. The definitive architecture is ready.

July - August
The game isn’t over!
We were able to pass on our beloved project to a new team who will be responsible for deploying it. I was really happy to be in charge!

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Individual challenges

Enjoy challenges in your day-to-day activities.

At Orange, you can.

#LifeAtOrange

Team challenges

Find out more on orange.jobs