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The EU AI Act and the Swiss Data Protection Law will drive a big demand for trustworthy digital solutions

LAC² Interview with José Lopez, Founder and CEO at JMC Software AG
In conversation with Dr. Donnacha Daly

José, please tell us about your background and your connection to Luzern

I grew up in Luzern and I live in Luzern. I always loved computers and I started programming when I was 12 years old. I began my education with a commercial apprenticeship (KV) after which I was became junior developer at a local IT company. After the company was acquired, I became deputy head of R&D, and later the manager for all international R&D, where I built a team of 30 developers. By this stage I was still only 20 years old! In parallel to this work, I founded my own software company as a GmbH at 18, where I worked 20%. In 2002, at the age of 22 I moved 100% to this startup, which in time became JMC Software AG the company we have today. I am also the CTO of a SaaS Startup. Over the course of this journey I also managed to complete a National diploma in IT engineering, as well as executive education programs at the London Business School and Harvard.

What does JMC mean?

That's me! José Manuel Computing. I founded the company 26 years ago I and I'm still the sole CEO. We now have about 40 staff in total, which is roughly split 50% software developers and 50% systems engineering. Our company motto is "we digitize business", which captures well the essence of our products and services. We do IT consulting and custom development; we build and run digital commerce platforms, both front- and back-

end; we provide managed IT services; and we also have our own niche software product, an ERP SaaS system for shipping logistics.

Can you give more insight into your operations and customers?

Yes, I would describe us as a technology shop of enthusiastic IT professionals. We prioritize quality over quantity. We are very solution focused, and we have loyal customers as a result. We are one of the few providers who do true continuous integration and continuous delivery, which means live deployments and zero downtime. Our high-quality service has resulted in our position as the leading Swiss provider of digital platforms. We have 500 servers in 3 Swiss locations, with dedicated dark fiber, geo-redundancy, and secure mini cages. We operate Tier 3+/4 servers, which are high-security and Finma compliant. We own all the infrastructure, and data never leaves Switzerland. When you browse websites of big brands like Betty Bossi, PKZ, Metro, APG etc., they are all running JMC digital platforms. As a result, we have certificates for "Swissness", and "Swiss-made", and we have won awards e.g. for best retail case with our solutions.

Congratulations! It is great to see such success on our doorstep. Can you tell us where does AI come into the picture for you at JMC?

We have our own data-science development team. And we develop and run our own AI modules for our customers and our digital platforms. We have a contract with the Algorithmic Business Lab at Hochschule Luzern Informatik. This team does amazing proof-of-concept work for AI use-cases, and we industrialize this in our portfolio. The partnership works extremely well, because the university gets to focus on research, and we do all the productization and integration, which is our sweet spot.

Can you give us a couple of examples of AI solutions you have developed?

Yes. One example is in the automatic categorization of products. We use convolutional neural networks (CNNs) with CLIP technology for tagging product images, based on automated self-learning. Another example is our use of open-source language models for fixing cases where we have incomplete product information. We can fill out missing text parts of a product description.

Has it been a challenge for you to get productive with AI?

The partnership with HSLU is a huge success factor in proof-of-value for AI use-cases. But this is a new area for our customers, so there are hurdles to overcome. A main concern is that solutions will be very expensive, or that they will not work. You need to build credibility, and confidence that it is possible also with a smaller budget. It is all about convincing and coaching. Credibility on more traditional IT projects plays a huge role in building customer trust for explorations in AI. Once you embark on these projects, you have to target quick wins with impressive PoCs.

Can you tell us more about your collaboration with HSLU? What about IP?

The team at HSLU is led by Prof. Dr. Marc Pouly, they have great people there. But of course, they want to do strong academic work, while our end-goal is implementation oriented with a customer-case vision. We manage this using a pareto principal approach, we can get to 80% of our goal with 20% of the research, which is good enough for what we need. It is very practical and pragmatic, in terms of trade off. The HSLU does grounded research, and we get novel AI solutions. It has been a very positive experience, we started with a small budget over 6-9 months, and have since expanded the budget and engagement horizon significantly, over 18 months. We typically have 2-3 research topics under investigation within a funding window. In terms of IP, we share the intellectual property rights of the MVP with the University, for re-use and further development.

In your view, what are the opportunities and risks in AI?

We see the new regulations which are coming as big opportunities. The EU AI Act and the Swiss Data Protection Law will drive a big demand for trustworthy digital solutions. Over the last 26 years we have been developing digital platforms and hosting customer data. Our USP is this trust, to host very sensitive data securely, for example employee data, and other sensitive transaction data. That is going to get even bigger for us.

More generally, AI is here to stay, it is not a hype. There now exists the data and the computation to train huge models. With large language models, we now have very general generative AI. But we are still at the foothills of development, we are still only in the first 10% of what AI will be able to do. In future we will probably find ways to use smaller AI models trained on industry specific data. Customers will train their own models on their own data hubs, with individualized, correct underlying data. This will be more credible and relevant than what we have now.

What about the longer-term future?

I think AGI is still far away, we are hundreds of years from super-intelligence. It is the beginning of a new AI age, we shouldn't be afraid. AI represents an opportunity and is a tool that can help humanity.

For my company, JMC, I think we will also have to adapt to these changes. We have reinvented ourselves 5 times in the last 26 years, and we are doing so again for the future world of AI and other technologies like quantum computing. I am confident this will be a big opportunity for us.

As for our region of central Switzerland, this is also a time for change. We see a big difference from what things were like 5 years ago, with Crypto Valley in Zug and LAC² in Luzern pioneering the way. There are more IT companies in the tech sector and more tech talent coming through the universities. I am optimistic for the Region!