

Computer Science Engineering - T2D Leadership and Innovation A.Y. 2022-2023

Leadership Story Report





Leadership Story - Roberto Vergallo: an innovation leader

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Introduction

The current report and the video linked in the cover are the final project work of Leadership and Innovation course. The aim is to describe the profile and journey of an innovative leader, by interviewing him and carrying on a critical analysis through the main topics of the course.

The leadership story is about an innovative leader working as a computer science engineer and academic researcher. He is Roberto Vergallo, a young professor at the University of Salento and entrepreneur of the South of Italy and his journey as an innovation leader has been explored through a deep dive into his career and context.

An extract of the interview, which highlights most of his main characteristics and leadership behaviors, is available in the video.

The leader and his context

Roberto Vergallo is a computer science engineer, who graduated in 2010 from the University of Salento. He is also a musician and composer, focused on rock/metal music. He has always had this passion for music and has continued to cultivate it, together with his passion for IT. For him, working and playing music are different ways of expressing himself, but also the expression of the same need that is communicating his creativity.

In 2012 he started his Ph.D. which took him to UCLA (University of California, Los Angeles) for 6 months. As the final project work of his Ph.D., he designed and implemented a platform named WoX based on IoT that was the subject of the technology transfer through the university spin-off Vidyasoft of which he is a founding partner.

Vidyasoft s.r.l. is a company founded with the idea of bringing to the market the results of the academic research of Roberto and his friends and colleagues, who in 2015 decided to accept this challenge. He is currently the Head of the R&D Unit and responsible for the new product creation process: from research to development and market placing. Besides his current employment as an entrepreneur, he has recently decided to start a new journey as a researcher (RTDA) at the University of Salento, where he went back after a couple of years to obtain the scientific qualification and continue his path.

The main topic of his research is fintech (financial technology), especially focused on simplifying and improving customer experience using AI (Artificial Intelligence), IoT (Internet of Things) and DLT (Distributed-Ledger Technology). Another research line he is exploring is sustainability both environmental and ethical. In particular, he is focusing on a new discipline, called green software engineering, which aims to limit the environmental impact of digital.

Green software engineering is the perfect combination of his passions and reflects his personality and lifestyle: he has been vegan for ten years for ethical reasons and his philosophy is to try to have as limited an impact as possible of our activities as human beings on the planet and other living beings.

Given his strong vocation, a philosophy professor called him as "humanist engineer", a hybrid figure passionate about technology but very close to the human and ethical aspects. Recently, he has also started a period as a visiting researcher - that will see him involved throughout 2024 - at Delft University of Technology (TU Delft) about Green AI, focusing on limiting the environmental impact of AI and controlling CO2 emissions.

Finally, as a result of his research and of the coordination of the students of the GSA Lab - the lab he is in charge of at the University - he constituted the startup Snaproof with 3 of his former thesis students as partners, bringing a solution to solve the problem of double spending and the one-time programming. The solution provided, realized with the collaboration of the students, impressed Foolfarm, a startup factory, that thus decided to invest in this new innovative project.

Leadership functions

PURPOSE

Once back from California and started Vidyasoft, Roberto realized that what satisfied him the most was bringing value to the local area, where he was born and raised, by creating new opportunities for the young talents of his region with his innovative ideas and solutions.

Starting from the last decades of the 1900s, «Puglia has established itself, silently and far from the cameras turned on Northern Italy, as one of the places of excellence in Italian IT»¹, thanks to the collaboration of the main Information Technology companies and the local university (University of Bari, Polytechnic of Bari, University of Foggia, University of Salento) that contributes to create an IT Production District: «a well-connected productive fabric that employs around 5 thousand people, and absorbs IT graduates from Apulian universities»¹.

However, while these research centers were starting to emerge for the excellence of their studies, the same universities started to suffer from a "brain drain", a phenomenon according to which young people decide to emigrate after school or between the Bachelor's and Master's degree or at the end of their cycle of studies to the North of Italy or abroad. This phenomenon, which is the result of years of political decisions providing limited resources to the Southern territories, is extremely relevant even nowadays.

In this context, Roberto has graduated, obtained a doctorate and acquired the skills that have let him distinguish himself at local, national and international levels, winning challenges and hackathons and being awarded for his brilliant innovative ideas and research. So now, at the age of 40, his biggest aspiration is to give something back to the territory that trained him and gave him the right skills to be acknowledged by colleagues and members of the scientific community outside Apulia and abroad, by training new generations of innovators, teaching them not only technical skills but also transferring values and passion. Preventing people emigrating means avoiding losing an asset for the development of the local economy and keeping the talents who will become the innovators of the future. This is the mission he would like to pursue.

PEOPLE

The most difficult challenge but also one of his best achievements of the last years as an academic is to have brought the university laboratory, GSA Lab, back to life, hosting dozens of students who chose him as thesis advisor. He considers them as his vibrant community, consisting of both Bachelor's and Master's degrees undergraduates and graduated people who started their Ph.D., who have in common the love for digital and innovation and who gather to exchange ideas, find solutions to complex problems or provide a different solution to something that already exists. He manages a Slack channel to communicate with them daily and support them in case they need it. Moreover, he prefers to work from the lab instead of staying in his private office, to spend as much time with them as possible.

¹ https://it.mashable.com/tech/195/sembra-la-silicon-valley-ma-e-la-puglia-viaggio-nel-distretto-dove-regna-linformatica

According to him, the key to retaining and motivating people to stay is not to frustrate them by ghosting but to be always available and invest a lot of time in them. Students really appreciate that and this contributes to fostering his role as a leader and mutual trust.

PERFORMANCE

What he is trying to do with students is to be an example for them, motivating them and transmitting the passion for computer science, innovation and challenges. Roberto is by nature keen on big challenges: trying to solve "impossible" or known issues is what keeps him awake at night until he finds a solution. For this reason, he stimulates students to participate in hackathons, which he considers a testing ground for their competencies and a boost for their creativity.

As an entrepreneur, Roberto has won many challenges, some of them have been promoted by Banca Sella which then became a partner of Vidyasoft. Now, as a professor, he is the advisor for groups of students of the lab, which involves - almost dragging them - with his bold enthusiasm. In 2023, he was the advisor of a group of five students in the CINI Smart Cities University Challenge, an annual challenge for university students promoted to identify new ideas for tackling the ecological transition and contributing to the European Green Deal. UniSalento students presented a system that was the result of their thesis works and they were awarded for their research, their creativity and their communication skills. Roberto, from his side, was proud of their work and to be one of the few advisors to have joined the final conference together with his team and be in close contact with them all the time (they lived in the same apartment during conference days). In this way, he was able to support them, reassure them and give them advice on how best to express themselves.

Excellence, passion and talent are the characteristics Roberto looks for in students of the lab. The thesis proposals he assigns are never trivial, always aiming to solve complex problems. This is certainly a filter to attract students who are truly motivated and eager to achieve something concrete and so to build a very solid community that could be the basis for the development of the University Department and, on a large scale, contribute to the development of the territory.

Leadership journey

As mentioned before, Roberto Vergallo is a very creative, passionate, imaginative and curious person, always open to new seemingly impossible challenges: once he sets a goal, it becomes the focal point of his life and of his speculation.

His journey has not always been linear. After experimenting with all the negative parts of IT work in his first experiences after graduation - like requests for continuous availability, stress from deadlines, toxic mindset, etc. - he decided to find the right work-life balance: now he does not give up sports, spending time with his family or playing music. He has found the recipe that lets him be fully satisfied, both in his job and personal life.

The main challenge he had to face as an entrepreneur with Vidyasoft was doing business with friends. Founding a company with friends who share a passion is nice but also difficult: he has not always been able to impose himself or suggest alternative ways, more in line with the company's initial mission. The fact that there were friends on the other side held him back a lot. The spin-off has therefore taken a slightly different direction from the one it was originally intended for: the idea of focusing everything on innovation has been overwhelmingly complemented by IT consultancy, much to Roberto's regret, who nevertheless continues, although slowly, to pursue the company's R&D goals. Shaped by this experience, he has started the new journey with Snaproof with a new mindset: even though he has established a good relationship with the students who are now his partners in this new startup, he has realized how important it is to define roles from the very beginning.

Seven years since the spin-off was founded, Roberto had exhausted the innovative drive. So when he had the opportunity to come back to University as a researcher, he had new great opportunities from a scientific and creative point of view. COVID-19 also contributed, because having more time staying home, because of the pandemic, new innovative ideas started to run through his mind.

Roberto therefore took over the university's GSA Lab and started to create his "community" of undergraduate and graduated students to whom he would pass on not only his passion for fintech and innovation but also his modus operandi. Being a leader of innovation puts him in a position where he needs to delegate and trust his collaborators. He came from the experience of the spin-off in which he have always trusted his partners blindly and this sometimes caused him problems because, when issues arose, he had to take full responsibility for them. So now he feels somewhat limited by the control mania that has come over him and the need always to know everything to prevent things from getting out of hand. He realizes that this is not a good approach and that it is therefore necessary to find the right compromise in order to work better with his team. Learning to trust and delegate is also important because it allows him to better organize his days and devote the right amount of time to himself.

Another challenge he has to face in his leadership role with students is finding the right trade-off between leaving people to freely express their creativity and doing activities respecting the timeline. Some students do their job meticulously following the directives and the suggestions; on the other hand, others are volcanoes of ideas. In the first case, Roberto feels that he should encourage them to put in their effort, to give alternative solutions and not to be mere performers; in the second one, he needs to calm them down but at the same time

consider their ideas, perhaps revising and adapting them to the project while making sure that requirements and deadlines are still met. It is a delicate job because the risk is that of hurting the sensibilities of people who may be frustrated by having ideas that are of great value to them rejected. As a leader, therefore, Roberto first and foremost wants to encourage creativity and enhance the new ideas generation process, but, at the same time, he needs to highlight the importance of following a plan and respecting deadlines and project specifications.

An example of the good job he has done until now with students is the startup Snaproof. In this project, he coordinated a group of students from the research activity (finalized to their thesis works) to the actual development of a solution, the search for investors and the constitutions of the startup, in which they became his partners. He really appreciates the hard work that they have done and the passion they demonstrated. For this reason, he is very happy to conduct them in this new experience and share with them his values: when he sees commitment and motivation on the other side, he also makes every effort and puts in all his experience to prevent problems and meet the objectives.

According to him, being an innovator is very challenging and takes a lot of time and energy but it always gives a lot of satisfaction. He is very enthusiastic about his work and how he is pursuing his goals, without forgiving about personal aspirations and values. In fact, in his journey, Roberto tries always to be himself but, at the same time, gets much inspiration from characters he admires. Concerning ICT, he recently started following an Italian Fintech "influencer", Silvia Attanasio, who is the president of ABI Lab, the Italian Banking Association. She is someone he looks up to with a lot of admiration because in addition to being very well prepared, she is very passionate and "easy-going" in her style and she is always casual in wearings. Roberto mirrors himself in her because he likes to present himself to other people in the most truthful manner concerning his real personality. Speaking more generally, he gets inspiration from Joaquin Phoenix, the actor who played the Joker, and the musician Moby, who in doing their job are influencers, awareness-raising and communicators; they are both vegans and try to transfer messages that go beyond their work. And that's what he tries to do in his job: transfer a kind of sensitivity for sustainability and an ethical lifestyle.

Leadership frameworks

The leader and his journey, personality and behaviors have been analyzed through the main conceptual frameworks of leadership theories.

LEADERSHIP BEHAVIORS

Leadership behaviors can be characterized by two main categories: on one hand all the relationship-oriented behaviors (concern for people) and, on the other hand, the behaviors that are oriented toward tasks, organization and control (concern for production).

During the interview, Roberto emphasized the need for him to find the right trade-off between building a balanced relationship with the students of GSA Lab and achieving the projects' goals, paying attention to deadlines. His role in managing the students with whom he collaborates in his research activities is fundamental, as he is a point of reference for them. Motivating them and encouraging their ideas while giving them an organizational line and setting achievable goals is part of his role as a leader. Another relationship-oriented behavior he assumes is to try to create a solid community around the lab within a collaborative and friendly environment, being always supportive and available for any instance and attracting enthusiastic and curious people.

He has also a high concern for production, in particular in meeting deadlines and goals and using a well-defined methodology. He feels the weight of responsibilities toward investors and customers, so he cares that everything is done in a certain way. Having had bad experiences in the past, now more than before he cares about keeping the various tasks under control and well-organized.

According to the Managerial grid by Blake & Mouton, he has mainly a Team management leadership style, since he has a high concern both for people and production and encourages teamwork and commitment.



Figure 1 - Managerial grid

SITUATIONAL LEADERSHIP

A good leader does not behave always in the same way. His ability lies also in adapting to situations and the characteristics and readiness of people in his team.

The Situational Leadership model by Harsey & Blanchard provides four different leadership styles that may be used according to team member readiness and task:

- 1. **Telling** the leader provides guidance for task execution and closely supervises performance. Team members in this situation are people who do not have the specific skill set required for a task and who are insecure or unwilling.
- 2. **Selling** the leader explains decisions and provides clarification, improving team members' skills and participation. In this case, team members are unable but willing to perform well in a task.
- 3. **Participating** the leader starts nurturing the autonomy of his team, by sharing ideas and support in the decision-making process. Team members are able to perform the task but lack confidence or are unwilling.
- 4. **Delegating** the leader turns over responsibility for decisions to team members who are more mature, able to perform tasks and take decisions autonomously and also confident and committed.

In his experience as an advisor for students (for thesis, during challenges and for research activities in general), Roberto uses different leadership styles, according to different situations he needs to manage:

- 1. **Telling** with students who are at the beginning of the collaboration or that are insecure or when a deadline is approaching. In this situation, he needs to provide a clear direction for the activities and specific instructions and supervision to the team in order to achieve objectives on time, but also to encourage and support less confident people.
- 2. Selling with very proactive students who always have so many ideas. In this case, Roberto tries to establish a dialog to explain motivations according to which some ideas are not feasible or need to be adapted to meet requirements and deadlines. People are eager to learn, so they take the opportunity to learn as much as possible from the discussions with him.
- 3. **Participating** with more skilled students he chooses to take part in challenges. With them, Roberto has a supportive role in order to make them believe in themselves and in their abilities and let them be autonomous in decisions.
- 4. **Delegating** due to his bad past experiences, he often has some difficulties in delegating. He is trying to improve himself and so the new startup (Snaproof) could be a testing ground considering the fact that his partners are former students who have grown professionally following his teachings in the past years, so a good trust relationship has already been established.

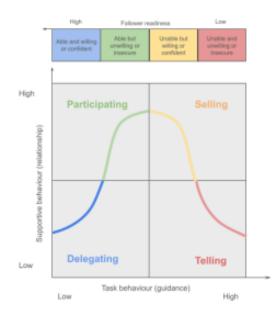


Figure 2 - Situational leadership style

TRANSFORMATIONAL LEADERSHIP

Transformational leadership is a leadership approach according to which a leader becomes the guide of changes in individuals and social systems. It is opposed to transactional leadership which is based on an exchange of transactions: the leader rewards or punishes followers according to the way they perform their tasks.

In the Full-range model, theorized by Avolio and Bass, transactional leadership is typical of ineffective and passive leaders. On the contrary, transformational leadership is specific for effective and active leaders and it is characterized by four positive elements:

- 1. **Individualized Consideration**: the leader gives empathy and support to his followers, keeping communication open with each of them and acting as a mentor who provides also genuine concern for their needs and feelings.
- Intellectual Stimulation: the leader challenges followers to a higher level of performance, stimulates them to continuous learning and encourages their creativity and their way of thinking independently.
- 3. **Inspirational Motivation**: the leader inspires and motivates followers with high standards, clear communication of vision and optimism about future goals.
- 4. **Idealized Influence**: the leader provides a role model for high ethical behavior, and gains respect and trust.

According to his behaviors, Roberto Vergallo is a transformational leader because pays attention to the feelings and needs of students, tries to be always available, listens to them, tries not to hurt their sensibility and takes into consideration their proposals and ideas. Moreover, he always challenges them by proposing participation in hackathons, suggesting stimulating thesis topics and involving them in the creative process.

Roberto has therefore become a role model for his students who have grown in number within the lab. They continue to collaborate with him even after graduation and get inspired and influenced by his path and his ethical values. They admire him and try to emulate him in their careers.

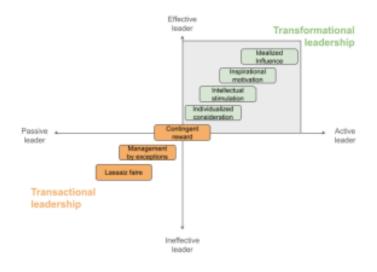


Figure 3 - Full-range model

Conclusions and takeaways

The application of leadership theories has helped to clarify what type of leader Roberto Vergallo is. Being a leader is not necessarily a trait but comes also from a series of skills acquired over time, under the influence of experience and context. Certainly, by nature, Roberto is an open, curious, imaginative and dynamic person, driven by intrinsic motivations. In his journey, he has worked hard on his personal growth and this has enabled him to lay the foundations to become the benchmark for student growth. And since there is no leader without followers, students play an important role in that because by choosing to accept the challenges he proposes and trusting him they contribute to the achievement of their common goals. Retaining people is a very hard challenge for a leader and the fact that he is succeeding in that, despite the ups and downs, makes him an effective leader.

As mentioned above, being an innovator is difficult: it involves having to make hard decisions, completely out of comfort zones and which probably do not involve immediate gain, finding new value drivers and new meaning. Roberto, as seen, is an expert as he is driven by a strong passion that allows him to go beyond any difficulty, always learning from struggles. It is also admirable that he works hard, in his own small way, to contribute to the development of the territory and the university, having made it his mission.

Roberto is an inspiration also in the fact that perfectly embodies the title of "humanist engineer" that has been attributed to him. Nowadays, the necessity of sustainability is increasingly urgent, not only for individuals but also for companies in every sector and for politics. Teaching ethical values to students is surely the best way to make them informed citizens and active participants in change.