



Beyond the known

The Manhattan project—for the development of the first atomic bomb in an enclave at the Californian desert, under Robert Oppenheimer’s supervision—may be the most complete example of a work team that managed to succeed in demanding conditions and in record time.

The leadership guru

At 80 years old, Warren Bennis shines enthusiasm and works by task. He is a teacher at the USC Marshall School of Business, president/founder of the Leadership Institute, and has written tens of books. The Financial Times rated his book "Leaders" as one of the top 50 business books of all time. He has been an adviser to four presidents of the United States, nominated for a Pulitzer Prize, and called "leadership guru" by BusinessWeek magazine. With a Ph.D. from the Massachusetts Institute of Technology, he has taught at MIT, Harvard, and Boston. In May 2001, the USC Marshall School of Business celebrated 40 years of its star teacher's career with a conference where Peter Drucker, Tom Peters, and Charles Handy all paid tribute to Bennis.

In his book titled *Organizing Genius*, Warren Bennis reports that, as a result of his study on the attitude and behavior of successful leaders, he found out that it wasn't appropriate to consider teamwork and leadership apart. The reason why? The best teams, the ones that have produced significant change, are born from the respectful union between a capable leader and brilliant individuals. More than leading, it is about organizing talent, or the "genius" mentioned in the title.

The prestigious professor of the University of South Carolina doesn't believe in the lonely triumpher, who, against wind and tide, overcomes the obstacles, and complains in his book that the difference between "leader" and "hero" can often become too misty. The widespread obsession for extraordinary individuals is reflected on the fascination that some high-profile entrepreneurs arise, and the counterpart to this is the underestimation of teamwork. However, reiterates the author, cooperation and collaboration are increasingly becoming more important. Even when, in the collective imagination, the lonely hero rides his horse and removes obstacles with his silver bullets, reality seems to show that he is usually accompanied by a group of brilliant people.

The following interview is about a paradigmatic leadership case, as Bennis understands it: the Manhattan Project that brought together a group of scientists engineers in Los Alamos in the midst of World War Two with the purpose to develop the atomic bomb before the German.

In your book *Organizing Genius* and in several articles about leadership you mention the Manhattan Project as an exemplary case.

The Manhattan Project is the most important symbolic case of leadership and teamwork of the 20th century. Under the direction of Robert Oppenheimer, a group of talented scientists, none of them older than 32 years old, was gathered in a "secret" spot, Los Alamos, to develop a weapon that would change the course of history. Their first meetings took place in January 1943 and after a little longer than two years they had produced the atomic bomb.

Why do you consider it the most important symbolic case of the century?

There are several reasons for that. Oppenheimer was able to motivate his team and lead them beyond the imaginable, and he put himself into risk trying to achieve something that

had uncertain results. He had the credibility and the ability needed to boost the group and make them launch themselves into the unknown. It was the first time that those scientists and engineers worked together and, unlike what usually happens in most projects, many of them didn't even know why they were there.

A good leader is the one who helps the other team members to find a definition of success that is common to all. Oppenheimer demonstrated this when Richard Feynman, who was then around 23 years old, complained and asked him to reveal what was going on. They spent hours making calculations without knowing what for, were under strict confidentiality restrictions, and were followed by FBI agents whenever they had to leave Los Alamos. Feynman insisted that Oppenheimer had to trust his people, provide meaning to what they were doing, and remind them of what was important. Oppenheimer consented to Feynman's complaints and explained the project goals to the team of scientists: create a weapon that would put the so-called Free World in position to win World War Two. By providing this classified information to the team, he gave meaning to their work.

Considering the very unique characteristics of the Manhattan Project, you suggest in your work that several lessons can be extracted from it and used by the business world. What are they?

Robert Oppenheimer wasn't the most brilliant scientist of the group of engineers, physicians and chemicals; some of them won the Nobel Prize years later. However, he was able to leave his ego aside and encourage the talent of every other team member, which is an essential quality of corporate leaders. Presidents of complex global corporations cannot possibly know everything. Oppenheimer was guided by two principles. The first one: "Nobody is as smart as everybody". The second one: "We are able to explain to everyone else what we know". This way, he managed to bring together scientists from different areas and with different backgrounds and get the best from each of them. This is the essence of leadership.

Had Oppenheimer given signs of his leadership skills before?

He had no previous leadership experience and this is what's interesting about him. He had not attended business schools, neither had he received any education on team leading, but he managed to make the scientists respond to him because he was one of them and knew their way of thinking.

How were the scientists selected?

Oppenheimer held two academic positions at that time: in Caltech, one of the most important center of investigation of the United States, and in the University of California, Berkeley, another leading institution in the area of theoretical nuclear physics. He also had contacts at the major universities in the United Kingdom, Italy, Germany, and in the United States, reason why he knew the nuclear scientists. He selected them based on his personal experience.

What were the obstacles that he had to face?

The first one was related to the difficulties inherent to the task itself and the fact that he had to select people from different areas of knowledge that were not used to working in a team. The challenge was to make those "complete strangers" collaborate and pursue a common goal. The second one was external and related to security. Oppenheimer's boss was general Leslie Groves, who was suspicious of him because his wife and one of his best friends had sympathy for the communist regime. However, Oppenheimer managed to seduce Groves and made him play on his side and support him. Under the general's

protection, the project was left under the responsibility of someone who could complete it.

The act of keeping a group apart from distraction, such as in Los Alamos, contributes to making it more cohesive?

There is no need to isolate a group, but it is important to protect its members and keep them physically nearby each other. Today we have virtual teams being promoted, but there is nothing like working face to face.

Did the fact that the team members were so young play an important role on the project?

The engineers and scientists worked several hours a day and progressed in a rhythm that was hard to maintain. They didn't have a domestic life either, because their families were not at the military base. Of course those were war times.

Were there other costs to the team members?

There was a subtler one related to the fact that they produced a weapon of mass destruction that killed thousands of people in Japan. They had to face an ethical issue and many of them spent the rest of their lives being haunted by the burden of guilt for being the cause of such destruction.

What usually happens after a brilliant team achieves its goals? Is the team broken-up or are team members engaged on a new project?

In general, the members of a "hot" team, such as the Manhattan Project, feel relieved when they finish their mission. They rest for a while and recover their energy, but very rarely they find again a group that significant.

What other successful teamwork experiences comparable to Los Alamos can you mention?

The Lockheed Skunk Works, an elite group of aeronautical engineers and contractors that designed radically different aircrafts.

Another important example is PARC (Palo Alto Research Center), the Xerox's lab where many of the inventions that enabled the development of the personal computer were born. In a distinct sphere, it is also worth mentioning the Clinton-Gore campaign in 1992, which elected president the first democrat candidate after Jimmy Carter.

In all three cases, there was a leader who left his ego aside, based himself on the skills of the group, and helped to create a definition of success that was common to all.

Given the complexity of today's world, it is essential to coordinate teams in order to face challenges such as the Asian tsunami. Nobody can do everything alone. In the future, there will be the need to have several Manhattan Projects in order to be successful, mainly in the corporate world.