

# Where Has All The Management Gone?

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## ABSTRACT

eXtreme Programming (XP) has been around for about five or six years now and is beginning to gather momentum.

As more and more people and organisations become aware of it and its values and practices, managers who view those practices as chaotic are voicing a growing concern. In particular, many of them seem to find the apparent lack of management control anarchic and may be led to ask the question, “Where has all the management gone?”

At previous conferences and talks I have attended, the two major criticisms I have heard leveled at XP by opponents are:

- *Lack of discipline.*
- *The abolition of the development manager*

This paper presents a set of management values and principles that extend those proposed by XP. It then examines how they are used at Workshare and the four main areas that we focus our attention on. Showing that, far from lacking in management, XP actively promotes the style of management recommended by the management gurus.

## Keywords

Management, quality, five disciplines, TQM, XQM, Total Quality Management, eXtreme Quality Management.

## 1 XP AT WORKSHARE

Because of the fast pace of change in the technological arena our design and functional specifications needed to be flexible. Although our methods were agile, they were no longer scaleable to the growing size of the engineering team and we suffered from several common problems: Installing XP involved wholesale changes in work practices across Engineering. We recognised that we needed outside help to get us started and so employed American XP consultants, ObjectMentor [1], to help us. Six key members of our team attended the XP ‘Immersion VI’ course at the ObjectMentor training facility in Vernon Hills, Chicago. Following that, we had several experienced mentors on site for a three-month period and then spent another three months ‘flying solo’, integrating our newfound knowledge. Since then we have had follow-up visits from the mentors but have largely implemented the XP practices to suit our own style.

Our own management values and principles had always

leaned towards the people management principles of TQM, as described by Deming in his 14 points for managers [2], and those of the Learning Organisation [3]. We found that XP formed a perfect complement for our existing values and that combined they could be loosely termed, ‘eXtreme Quality Management’ (XQM) [4].

## 2 VALUES

### Vision.

Companies are started and led by teams and individuals that have a vision. They set the direction of the company and the design of its products. They determine strategy. The quality of their vision determines the quality of the whole company.

At Workshare, we have a Product Management team that, as well as acting as the internal XP customer, liaises with the external customers, Technical Support, Sales Engineering and Business Development, to gather feedback, opinions and wish lists. This gives us the ability to monitor the quality of our vision and we use the information gathered to change our vision when necessary.

### Honesty.

Fear, blame and anger are barriers to productivity and creativeness and have no place in the workplace. By making the developers and customers aware of their XP rights we encourage honesty and openness in the workplace. We have produced a similar set of rights for the testers that, like the customer and developer rights, appear on whiteboards and posters throughout our engineering department.

### Synergy

We should seek to work in harmony with each other and in collaboration we can achieve greater goals than we can on our own. By collaborating, using communication and feedback, we can improve the quality of all our relationships and interactions.

## 3 PRINCIPLES

### Quality

Quality can be defined as the value, or benefit, gained from an interaction. An object or person has no inherent quality but derives its quality from its relationship with some other object or person. At Workshare, it is the responsibility of all participants in a relationship to strive to improve the mutual benefit of any transaction by collaborating.

### Collaboration

This concept is very simple. It recognises that everyone

in a process is, at every stage, a customer to someone and a supplier to someone else. The need to identify customer requirements is core to our approach. Everybody is a supplier to a set of customers and every one of those customers has requirements.

Going further than this, the supplier must communicate with the customer to ensure that he truly understands the requirements in order to deliver the highest quality service. This is a move away from the conflict ethic so pervasive in business relationships. Conflict is a zero-sum game; if one side wins the other side must necessarily lose.

*“The full capability of the people in the company, working together, working with and for each other may be expressed as:*

<i>Individuals</i>	<i>A+</i>	<i>B+</i>	<i>C+</i>	<i>D+</i>	<i>...</i>
<i>Interactions</i>	<i>+(AB)+</i>	<i>(AC)+</i>	<i>(AD)+</i>	<i>...</i>	
	<i>+(BC)+</i>	<i>(BD)+</i>	<i>...</i>		
	<i>+(CD)+</i>	<i>...</i>			

*”[5]*

In a non-collaborative environment, the benefit to the company is simply the sum of the capabilities of the individual employees. In a collaborative environment the company gets the benefit, not only of the sum of the individual capabilities, but also the sum of the interactions between the individual employees.

### Selection

Not every individual shares our values and goals or is willing to learn. Only those individuals that share our vision should be invited to join the team. Selecting people on their technical skills alone can be counter-productive. Negative interactions between team members reduce the capability of the team. To be an effective member of a team requires a high level of personal skills. It is much easier to teach technical skills than it is to teach personal skills.

### Optimisation

Optimisations must benefit the whole system. Individuals should be aware of their role in the system and the ramifications of making local improvements. The planning games show us that software development is systemic. Change one component and there is an immediate effect on another. Increase the scope and the duration changes, increase the duration and the scope narrows. There is interrelatedness between all aspects of software development and XP highlights this.

### Learning.

Communication and feedback allow us to reflect on our performance. A commitment to improvement allows us to learn as a team, so that we can develop intelligence and abilities greater than the sum of our individual members’. Continuous improvement underpins our ability to be a learning organisation. We use iteration and release retrospectives that involve every member of the engineering team to determine; what we are doing right and what we are doing wrong.

### Agility

To maintain quality in this fast changing commercial

world, management must learn from the lessons of XP and also become agile. The commercial world is not a static environment and demands, wants and needs change almost hourly, especially the needs of the customer. Modern organisations must be able to react quickly and dynamically to change, by altering their vision, in order to maintain their standards of quality. Our Product Management team is in constant communication with the real world and are not afraid to change the direction of the products when necessary.

### Intimacy

Intimacy is the ability to talk about your most essential and innermost feelings. It means speaking honestly about your goals, fears, mistakes and uncertainties. To do this takes courage and you need to get to know each other pretty well. We encourage our staff to socialize with each other by holding company-sponsored evening at the local hostelry and organise staff outings.

### Empowerment

XP encourages employees to build their confidence by allowing them to choose their own goals and formulate their own purposes. The developer and customer rights reinforce this [6].

XP also helps us practice empowerment by placing the responsibility for task allocation firmly in the hands of the developer and allowing them to choose their own work. Even though we have a very large team (for XP), we refuse to split it and we allow developers to pick which area they wish to work in on an iteration-by-iteration basis. They are still allowed to pair with anyone they want to during the iteration.

### Culture

The behaviour exhibited and encouraged by the leadership determines the attitudes and behaviour of the staff. An organisation whose leadership practice secrecy and deception can expect no more than for its workers to follow suit. A company whose leaders focus on short-term results at any cost can expect the same attitude to filter down throughout the whole of the workforce. On the other hand, a company whose leaders pursue long-term visions and quality of work can expect the same in return from its workers. If an individual’s best path to success is to improve the success of the organisation as a whole, they will choose that path. If the best path is through a short-term personal gain at the expense of another, they will choose that path. Organisational culture determines the path that individuals take in their search for success.

### Coaching

There are three approaches to motivating team members:

#### *The stick*

Strategies include: threats, bullying, shouting, intimidating and criticizing. This is the ‘kick-ass’ style of coaching.

#### *The carrot*

Offer rewards for good performance. Give financial inducements to employees that reach their quotas, extra holidays and bonuses for the top performers. Encourage

your team to compete with each other.

But if you have a competition, you will have losers as well as winners.

#### *The coach*

If we only employ individuals that: enjoy programming, already know a bit about it, are keen to learn and are all adults. We just need to leave them alone to do their work and focus our efforts on whatever we can do to help or to make their tasks easier. Are there any problems that will prevent them from doing their work? Are there any barriers to their success? As managers, we spend our time helping people, not giving orders and punishing failure.

#### **4 MANAGEMENT FOCUS**

At Workshare, management focuses most of its efforts on enabling the individuals that form our teams to manage themselves and allowing them to manage the process as part of their day-to-day activities.

There are four areas that we concentrate our efforts on -

##### **Recruitment**

One of our core principles is selection. This is echoed in XP, Kent Beck quotes personnel management as one of the most serious tasks of the XP manager [7] and personnel management starts at recruitment. We recognise that people are different and that they have different desires and needs. We take care to ensure that we only recruit people whose needs and desires match our own.

So what are we looking for? Task Maturity [8] - a certain level of technical skill and experience are required to perform the role but, in addition to this, we are other things we look for.

Motivation is an aspect to examine in potential recruits. Examining the candidates' motivations allows us to determine if they share our vision. Do they like and want to do the things we do?

Other attributes we seek in a candidate are self-esteem and a desire to learn. The joy of learning is an intrinsic and attractive motivator, the most powerful motivation there is. We also need recruits with a high level of self-esteem because self-esteem demonstrates that individuals are confident in their abilities

To test for the desire to learn, we question the candidate about their reading lists. What are they currently reading, what book would they refer to answer a particular problem? Candidates whose only source of reference is MSDN or the world-wide-web are generally found to be unsuitable.

Self-esteem and the right types of motivation demonstrate Emotional Maturity [8].

Have the candidates pair-program with someone for a while and see how they take to it. Listen to the opinions of the team and don't be swayed by technical expertise and qualifications.

We recognise that there is a different model of employment in the twenty-first century. Employees are no longer seeking a job for life and employers should no longer be offering it. We are looking for someone who will add

value to the team, improve the team's performance and will benefit from being a member of the team.

Take your time and be prepared to wait for the right candidate. It will be worth it.

##### **Performance**

This is where the role of the manager as the company's exponent really comes to the forefront. This is where we spend our time explaining to our team the rationale behind why and how we do the things we do, conveying the vision and the values of the company to the team.

Every three months or so, we have a presentation of the accounting figures for the year to date by the Chief Financial Officer. This demonstrates our commitment to openness and gives feedback on the financial performance of the company to all members of the team.

At similar intervals the Chief Technology Officer will present to us the direction of the products, the latest feedback from the customer's, new ideas for products that are on the horizon and his vision for the future.

At both sessions, members of the team are encouraged to ask questions and discuss any problems they may foresee or contribute any ideas they may have.

##### *Coaching In Practice*

When we first started XP, we appointed one of our most senior developers as a dedicated programming coach. We soon found that this didn't work too well as the demands on him as a senior conflicted with the demands on him as a coach. Now we nominate a coach for each iteration from our pool of 4 'Architects'. Every iteration they take it in turn to be the programming coach, taking no stories themselves but simply pairing with who ever needs their help.

Four times a year, we informally interview each member of the team to discuss their past performance, how they feel about the work, the department, the company and life in general. We encourage them to be intimate and reveal their needs, their goals and their vision of the future. We try to determine how they can achieve their goals through work and encourage them to set new goals and use a system of self-assessment to monitor their own progress.

##### **Improvement**

###### *Tracking & Metrics*

We measure the velocity of the team to supply a budget for the next iteration and release. We also keep a record of all our QA defects. We are very careful not to use these metrics to "discipline" individual members of the team, this is not an appropriate use of the data and the metrics gathered are outputs from the system, not individual worker's output.

At the end of every iteration or release, we spend some time on a retrospective, where we present the metrics to the team and involve the whole team in our efforts to improve the system. We find that making everybody part of the improvement process builds commitment.

###### *Team Improvement*

During our transition to XP, we used the services of ObjectMentor as coaches. We realised during this period

that having external coaches come in and work side-by-side with the developers, was much more effective than sending individuals on training courses.

The coaches also introduced us to the concept of the 'lunch and learn', where the developers eat lunch (paid for by the company) while participating in a presentation by the coach.

We have since continued both practices with great success.

### **Retention**

The office is more than just a building that you go to work in. It is a place of social interaction, a community and it is part of management's role to engender the feeling of community. To help with this we buy in food and have it delivered from the local supermarket so that team members can make their own lunch or have a snack when they want. We have also set aside an area in the department as a lounge. Here the team members can relax and even use the playstation we have also installed. In addition to this we run an options scheme that is open to all employees to make them feel more than just employees.

### **Succession**

In informal interviews with the team members at the beginning of this year, the biggest complaint we received was lack of recognition. What we learned was that, although we had replaced training courses with on-site coaches, training courses are not just about learning. Attendees on a training course receive a certificate (whether they learn anything or not) and the developers value these certificates as additions to their CVs. They can then demonstrate to any future employer that, while they were employed at Workshare, they developed their skills and advanced their learning. This is something missing from XP as most of the training comes through the use of a programming coach and pair programming.

To satisfy the need for recognition we have decided to implement an internal employee development programme with accreditation from the British Computer Society (BCS) [9]. The team members will gain points for performing certain tasks and, when they reach a certain

level, they will be awarded BCS recognition.

## **5 CONCLUSION**

Our experience has shown us that software developers are intelligent and responsible beings that, when given the opportunity, can operate a system for the effective and predictable manufacture of quality software. XP can be shown to match the thinking of the best management gurus and so promotes good management. Rather than diminishing the level of management, XP increases it but forces it to concentrate on the real issues - employee welfare and development.

## **6 INFORMATION AND QUESTIONS**

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