

The Soft Part is the Hard Part

Jim De Piante, PMP, Executive Project Manager, IBM Research

Abstract

It's impossible to realize the value of a powerful microprocessor unless it has contacts and is connected to and able to communicate outside of itself. Likewise, technical professionals must master communications to be effective.

All soft skills are about engaging with and interacting effectively with others. The essence of soft skills is communications. Communications is about transferring meaning. The process is fraught with peril. Any number of things can and do interfere. The effective communicator accepts responsibility for each interaction and seeks to fully understand the needs of the other person. The principal tool for understanding the needs of the other person is empathic listening. Truly empathic listening is and can only be motivated by a genuine interest in that other person and their needs.

Hard skills

The enormous potential of hard skills

The *Intel Core i7-980X Extreme Edition* processor (Exhibit 1) is an engineering marvel. Published specifications for the processor tell us that it has the following attributes (Intel, 2010):

- It has six physical cores
- It's base clock speed is 3.33 GHz
- It supports three channels of DDR3-1066 memory
- It has 12 threads for applications to work with
- It has 12MB of L3 cache shared across all six cores

I'm not a technologist and so I really don't understand what all of that means. What I do understand is that the *Intel Core i7-980X Extreme Edition* processor is potentially very powerful and very fast. I also understand that to become the proud owner of one of these will cost me US\$999.00 . I further understand that if I were to go out and spend 999 US dollars on one, I will have wasted my money.

Out of the box, the *Intel Core i7-980X Extreme Edition* processor is utterly useless. Out of the box, in terms of its capabilities, it is completely indistinguishable from a stone of roughly the same proportions (Exhibit 2).

In terms of hard technology, nothing is finer than the *Intel Core i7-980X Extreme Edition* processor. We can envision all that we might do with it. Though it's designed primarily for gaming and other processing-intensive applications, it is capable of doing any other computing tasks that are routinely done by personal computers and doing them at record-breaking speeds. This is what it *could* do. As it is, it *will* do nothing. It's impossible to realize the value of the hardware in isolation.

Realizing the potential of hard skills

At this point, the value of the processor is merely potential. What will it take to actually realize its value?



Exhibit 1 – The *Intel Core i7-980X Extreme Edition* processor

Contacts. Connections. Input. Output. Communications. Power. A network.

Until we connect the *Intel Core i7-980X Extreme Edition* processor to the world, all of its immense potential value is wasted. Everything that it could do, all of its capabilities – mean nothing.



Exhibit 2 – A stone, approximately 10 cm across

How can you exploit the value of that processor without a way to get things in and out of it?

The *Intel Core i7-980X Extreme Edition* processor must find its place in a mother board (Exhibit 3). That mother board must find its place in a computer. That computer must find its place in a network. Then, the *Intel Core i7-980X Extreme Edition* processor can fulfill its potential.

Looking carefully at the back of the *Intel Core i7-980X Extreme Edition* processor (Exhibit 1), we observe numerous contacts. It's at least theoretically possible to make a processor without such contacts. It could thus be considerably smaller (and easier to make) than the *Intel Core i7-980X Extreme Edition* processor. But what good would it be? What could it ever do? How much would *you* be willing to pay for it?

In human terms

Imagine some solitary genius toiling away in obscurity in some remote corner of the world. This solitary genius, a physicist, has developed the *unified theory of everything*. He has taken the work of Albert Einstein and Stephen Hawking to the next level. He understands exactly how the Universe works, from the smallest subatomic particle to the entirety of the cosmos. For all we know, this may well be true. Unfortunately, our solitary genius is utterly bereft of soft skills and is incapable of communicating his theories to anyone so we have no way of knowing. His knowledge will die with him.

What is the value of his hard skills? What does it matter what he can conceive if he can't communicate that to others in a meaningful way?

Or imagine this: In some other remote corner of the world, some other solitary genius (who just happens to have a complete cancer research facility at her disposal) likewise toils away in obscurity. Working single-handedly, she has discovered the cure for all cancers. Unfortunately, she too is utterly bereft of soft skills and is incapable of communicating her discoveries to others. Perhaps this has really happened! How would we know?

What is the value of her genius? How much would *you* pay for it? About as much as you would pay for that Intel processor with no contacts. Zero.

At this point, the value of our solitary geniuses is merely potential. What will it take to actually realize their value?

Contacts. Connections. Input. Output. Communications. Power. A network.

Until we can connect them to the world, all of their immense potential value is wasted. Everything that they could do, all of

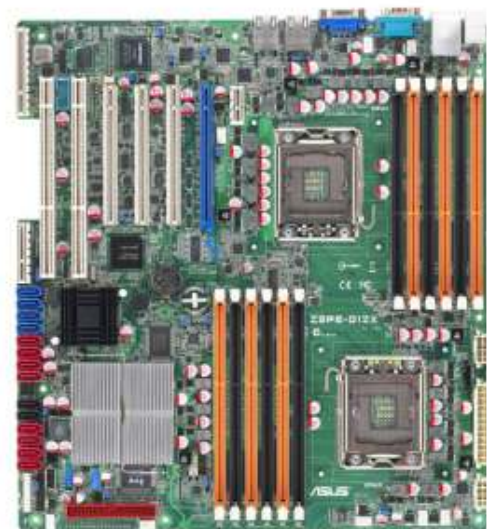


Exhibit 3 – A well-connected *Intel Core i7-980X Extreme Edition* processor

their capabilities – mean nothing.

The project manager's hard skills

As project managers, each of us must possess two different kinds of hard skills. First, we must possess technical skills within the domain of the project we are managing. If we are managing a bridge building project, we must understand something of bridge building. If we are managing a semiconductor development project, we must understand something of semiconductor development.

Beyond domain skills, we project managers must also possess project management hard skills – skills such as creating Gantt charts, conducting status meetings, calculating earned value and many others.

Such hard skills are necessary for conceiving ideas great and small – for solving problems, great and small – for managing projects, great and small, but to realize the value of those hard skills requires soft skills.

Investing time and energy to improve soft skills is an investment in ourselves that will help us (and our stakeholders) to better realize the value of our hard skills.

Soft skills

Specific skills

Even if we don't have a formal definition always and immediately at hand, typically, we know what we mean when we say *soft skills* and each of us can fairly quickly create a list of skills that fit our understanding. Here's a rather complete list of what I consider to be core soft skills:

- Leadership
- Selling
- Negotiating
- Conflict resolution
- Persuasion
- Explanation
- Advising
- Networking
- Teaching
- Public speaking
- Rapport building
- Writing eMail
- Communications
- Writing documents
- Criticizing
- Suggesting
- Leading meetings
- Collaboration
- Problem resolution

I think most people would accept everything that is on that list as fitting with their understanding of *soft skills*, and I think that most people would want to add several items to the list. In any case, though, in examining the list, some things are clear. One of the first things to observe is that the boundaries between them all are ambiguous, fuzzy. There's a lot of overlap between them and they seem to weave in and out of each other and even consist of and involve each other.

Consider, for example, the soft skill of *selling*. It's easy to imagine that selling might involve doing some networking, some rapport building, some explaining, perhaps some conflict resolution, some persuasion, some

negotiating, a fair amount of writing. And each of these in turn can involve several other skills.

Probably the very broadest of them all are *leadership* and *communications*. The overlap between the two is considerable, and they each can be seen as overlapping with or even encompassing virtually all the others.

Any one of the items on the list, in and of itself, would be a daunting field of study and a challenge to truly master. The idea of mastering them all, taken individually, is overwhelming, at least to me.

The idea of a body of knowledge

Earlier, I observed that project managers deal in two hard skills contexts – the technological domain, and project management, *per se*. In either of these areas, we can conceive of a *body of knowledge*, the sum total of all that is known about the subject. Notably, within the field of project management, Project Management Institute (PMI®) has codified the body of knowledge of the field in a standard entitled *A Guide to the Project Management Body of Knowledge (PMBOK® Guide)*.

Soft skills defy such codification. Soft skills aren't so much about knowledge as they are about behaviors and the application of those behaviors. The possibilities are as many and varied as humankind and the situations in which human beings interact.

In my own career and life, I have struggled with soft skills. I struggle with any kind of complexity, frankly, and as a consequence, I strive to simplify complex things. I seek to analyze, decompose, synthesize, prioritize – whatever I can do to reduce complexity so that I can better understand what is going on.

In looking at soft skills, and being overwhelmed by the complexity, I began to take them apart into their constituent elements. I was convinced, intuitively, that all soft skills really consisted of but a very few foundational skills. I set out to determine what they were.

One of the first things my investigation led me to was the need for a good definition. My experience has been that most of us have a pretty good intuition for what we mean by *soft skills*, but that we struggle a bit in formalizing a definition for the term.

An epiphany

I considered a great many possible definitions and took the best of what I found. I distilled them down to their essence and derived a definition that is simple, but not simplistic.

Soft skills: The ability to engage with and interact effectively with others.

Re-examining the above list of soft skills, it's plain to see that each one is about engaging with and interacting effectively with others. In retrospect, that seems pretty obvious, I suppose, but getting there provided me with three powerful insights.

- Engaging with and interacting effectively with others is exactly about managing relationships.
- The only tool you have for managing relationships is communications.
- Soft skills really do consist of only one foundational skill – communications. The only thing that changes is the purpose.

Referring again to our processor analogy, it's all about I/O. It's about communications. The foundational soft skill, the *essential* soft skill, is communications. ***There is nothing else.***

Communications

Mastery of soft skills means mastery of communications, and mastery of communications begins with accepting complete responsibility for the success of each interaction.

At its most rudimentary, communication is about moving ideas between two minds. It's about achieving a shared understanding of ideas. It's about transferring meaning. Since communication involves two people, the process works in two directions, one, a mirror image of the other. It's bilateral, bidirectional. In communicating, you are seeking to be understood and the other person is likewise seeking to be understood. Correspondingly, you seek to understand them and they seek to understand you.

You can't be the other person in your interactions. You can only be you. You cannot act in their place. You can only act. You cannot control what they do. You can only control what you do. But you can influence them. I said that soft skill mastery means accepting responsibility for the success of the interaction. How can you be willing to accept responsibility for the whole interaction when you can't control both sides of the transaction?

That's what the rest of this paper is about. It's about what *you* can do. First, let's do a little experiment.

An experiment in communications

I want you to think of a tree. I want you to form a picture of a tree in your mind's eye. Close your eyes now briefly and imagine a tree.

Did you see it? What colors did you see? What shape was it? How big was it? Was there anything else with it? Did it have a shadow? What season was it?

I have in my mind the image of a tree. I want you to have that image in your mind too. You and I are in a relationship here. We're connected. I want for us to share an idea – the idea of a tree. So I ask you to think of a tree.

Conventions

In this transaction, you and I have an implicit agreement. A convention. The black squiggles you see on this page here below:

tree

...by convention, by agreement, stand for something. Those black squiggles have meaning according to the (implicit) convention that you and I have between us – according to a protocol. Because we have this convention between us, I can codify the idea of a tree into the word *tree* which you can then decode into the image of a tree and communication has happened.

Intrinsically, the black squiggles “*tree*” are meaningless. It's only because you and I agree on the meaning of the squiggles that we can communicate.

The salient point here is that all communication presumes a convention, a protocol. If I were speaking to a person who did not share that convention, those squiggles could mean something entirely different, or they could mean nothing at all.

Meaning also depends on context. If we were discussing computer science data structures and I referred to a tree, you would have thought of something entirely different.

Steps to mastery (conventions)

Knowing that communication depends on a protocol and that context influences which protocol applies, there are things we can do to improve communication and thus help in the mastery of soft skills.

- Know which conventions are operating, given the context.
- Master the applicable convention, whether it be your natural language, or the conventions associated with your field or the topic at hand. If you and the other person don't share a convention, you need to translate into a convention which you DO share.

What tree came to your mind?

In our little experiment, you formed in your mind the image of a tree. How closely did the image you had in your mind match the image I had in my mind (Exhibit 4)? Perhaps it looked more like one of the other trees (Exhibit 5) or something different entirely.

For as many people as read this paper, we are likely to have that many very different images of trees. There are a number of reasons for this, but three are particularly compelling:

1. It depends on our experiences with trees. We have different contexts. The meanings of words depend on our experiences. So while we may have a convention, it is imprecise.
2. Words themselves are imprecise, and ambiguous.
3. We are imprecise in our use of words.

Steps to mastery (speaking)

The single most important communication convention we have is our natural language, and it has problems. This gives rise to some additional suggestions for mastering soft skills:

- Seek an appropriate level of precision in articulating your ideas.
- Seek to understand the other person's context. Consider how they will understand your words and that it may be different from what you intend.
- Make use of other mechanisms to enhance your use of language – mechanisms such as photographs, drawings, sounds, gestures – things that go beyond the merely verbal.



Exhibit 4 – The tree I had in mind

Garbage out, garbage in

A tree is a really simple idea, and you can see that communicating an idea as simple as that can be difficult. Can you imagine how difficult things can get when the ideas themselves become complex?

You stand a much better possibility of being understood if you yourself understand your own ideas clearly. Consider the expression “garbage in, garbage out”? What about garbage *out*, garbage *in*?

If our thinking is unclear, our ideas don't become any more clear when they come ushering from our mouths. Our output serves as input to the other person. Garbage out, garbage in. If what we say is garbage, we shouldn't expect that they should be able to decode it into anything other than garbage.

We're very forgiving of our own fuzzy thinking. The human mind is really good at coming up with ideas. It's not always so good at remembering them and examining them systematically, seeing inconsistencies and discrepancies. It needs help.

Stop the motion. Take a snapshot. Capture your thoughts and organize them before you start trying to share them with other people.

If I asked you to think of the image of a beautiful tree and began by describing the molecular structure of the cell walls of the vascular cambium within the xylem, would I achieve my purpose? Or would your eyes glaze over?

We have to simplify our ideas. We have to understand them well enough to be able to explain them to others in simple terms.



Exhibit 5 – Your idea of a tree depends on your experience with trees

Steps to mastery (thinking clearly)

This gives us two more suggestions to work on in order to achieve soft-skills mastery:

- Organize your thinking before you start talking. The best tool I know to do this with is a pencil and paper. It allows us to capture words, sketches, diagrams, symbols, other things that make it easier for us to see our ideas clearly and refine them.
- Simplify your ideas. Analyze them. Synthesize them. Reduce them to their essential elements and share that much with the other person, allowing them to connect the dots.

Even following those suggestions, doesn't it happen that we think we understand what the other person is saying, or the other person thinks they understand what we are saying, but the presumed understanding is incorrect?

A process fraught with peril

The communications process is complex and error prone. There is noise and interference every step of the way. Our thoughts and ideas are more sophisticated than the words we can use to describe them. Words limit us. Words are ambiguous. Words can have secret meanings or multiple meanings. We think we are using the same language and we're not. We're sloppy in our choice of words. We are imprecise in expressing ourselves. We know what we mean and so we make a lot of assumptions about what we know and what the other person knows. We ignore ambiguity and imprecision. We make errors of fact. We remember incorrectly. Even if we are precise in expressing ourselves, others are imprecise in their understanding. People often hear only what they want to hear or what they need to hear rather than what we intend. We're disorganized in our thinking. We're disinclined to listen and more inclined to talk. Ambiguity rules! It's a miracle any communication takes place at all.

If you say something to someone and they certainly don't understand you, the puzzled look on their faces makes it obvious. They may even tell you that they don't understand. Likewise, if you are sure you don't understand what the other person is saying, you would say so. It's a sort of natural feedback loop that works pretty well. That much is easy.

The problem comes in when they think they do understand, or you think you do understand, and you don't. You

want to be sure before moving on. You have two techniques you can use, depending on the direction of the conversation.

When you want to be sure that **you** understand, confirm your understanding. Tell the other person what you think you heard. Restate. Paraphrase. Ask them to verify your thinking.

On the other hand, when you want to be sure that **the other person** has correctly understood you, ask them questions that get at their understanding. Ask them to restate. To paraphrase. Then verify their thinking.

As important as it is to verify understandings of what has been said, it's equally, if not more important to also understand what has not been said but should have been. What's missing? To fully close the feedback loop, you need to ensure two-way feedback on what's implicit. The only way to get at this is to ask more questions – of yourself, and of the other person. What assumptions are being made? What's missing? What is implicit that needs to be made explicit? What hasn't been said but should have been?

Steps to mastery (feedback)

So to fully ensure a correct understanding, close the feedback loop:

- Ensure you understand what the other person has said
- Ensure the other person understands what you have said
- Ensure you both get at what hasn't been said but should have been said

Know your purpose

You also need to be aware of and stay attuned to the purpose of each interaction. Before engaging in any communication, ask yourself, why am I doing this? You can't fulfill your purpose if you don't know what it is. Write it down. Clarify your thinking. Simplify.

Even more important than that is to know the other person's purpose. Often enough, your intuition regarding your own purpose can be mistaken. How much more likely is it that your assumptions about the other person's purpose is utterly off base? They may not have a clear idea of their own purposes. Help them to clarify their thinking, to simplify.

It often happens that I will be asking someone to help me understand why they want to do something, and as long as it remains unclear to me, I keep asking, "Why?" In the process of attempting to clarify for **me**, it becomes clear to **them** what their purpose is!

Too often, interactions are treated as zero sum games. Your needs and the other person's needs are seldom truly mutually exclusive. The real soft skills master knows what the other person needs, and finds ways to meet those needs by achieving their own purpose. Often enough, the easiest way to understand their purpose is simply to ask them, "How can I help you?"

Steps to mastery (purpose)

Be very sure of the purpose of each interaction:

- Don't let your purpose or theirs remain implicit.
- Ask why. Know why. Probe. Test. Discover. Clarify. Confirm.
- Then consider the relationship between your purpose and theirs.
- Look for ways to achieve your purpose by meeting the other person's needs.

A simplified approach

The skillful use of the question is one of the most valuable techniques that you have for ensuring understanding and thus for soft skills mastery. Has it ever happened to you that someone asked you a question, and you began to give them a thoughtful answer and then noticed that they were not listening? Or perhaps, before you could finish your

answer, they started talking again! Have you ever been that person?

The best thing you can say

Along the way, I've learned a very difficult lesson. I've learned the most important thing that I can ever say in a dialog. It's guaranteed to improve how well the other person understands you. All you have to do is say this one thing, and they will begin to understand you better immediately, and be eager to work with you. Saying this one thing is guaranteed to improve communication, to ensure mutual understanding. In saying it, you will earn the respect and admiration of others. If you can learn to say it, then you are on your way to consummate soft skills mastery.

The best thing you can say to ensure understanding and engender cooperation is – **nothing**. There is nothing better that you can do to improve communication than to stop talking.

Apart from the positive effect that saying nothing will have on the other person, it also leaves you in a better position to listen. The most important thing you can do to ensure that you are communicating is to listen.

Another epiphany

For me, realizing that soft skills really means effective communicating was important. But there was another realization that follows on that one that is even more important.

I have always found soft skills and communications “training” that focuses on techniques to be a bit contrived, artificial, phony. In any case, the application of soft skills is not really something that can be codified. The possibilities are infinite and varied. The subject matter is simply too vast.

I needed an approach that would get at the **essence** of soft skills mastery and prepare me for all possibilities. It had to be comprehensive, yet simple. A direct, linear approach was out of the question.

Soft skills are about managing relationships and relationships are about other people. The thing to strive for in every interaction with others is shared understanding – two-way understanding. This is what real communication is about. You cannot expect that other person to understand you if you do not understand them, their perspective, their purpose, their needs, their ideas. You cannot, you will not be understood if you do not first understand. And that means an intense focus on the other person. Remember, soft skills is about relationships. It's axiomatic that a relationship that is entered into selfishly is doomed to fail. The essence of a good relationship is that the parties are focused on the other person rather than on themselves.

Mastering soft skills means mastering relationships and that means mastering the ability to be “other focused”. The only way you can achieve that is to be genuinely interested in that other person – their purpose and their needs. You can't fake being interested. To truly understand that other person requires that you understand their perspective. You choose your words, your syntax, the medium, your tone, everything, based on who that other person is.

For me, the game-changing realization is that soft skills mastery is about seeking always to understand that other person, and through that understanding, to help them to understand the meaning that you would like to share with them. But being understood begins with understanding.

The desire to understand derives from a genuine interest in that other person. And that genuine interest will motivate you to do the single most important thing you can do to ensure understanding, and thereby ensure successful communication and the sharing of meaning.

That single most important thing that you can do is to listen, to listen empathically, to listen for purposes of understanding. Understanding is the path to good communication. Listening is the gate to understanding. Empathy is the key that unlocks the gate.

Remember our long and daunting list of soft skills? Observe. Doesn't each and every one of those depend entirely

on skillful communication? And doesn't that imply shared understanding, which requires empathic listening, which presumes a genuine interest in the other party to each interaction?

To me, the vital realization, the crucial understanding, the key to soft skills mastery is quite simple.

Soft skills are not about you!

Soft skills mastery means mastering the art of understanding the other person.

Soft skills mastery

I'd like to close by briefly recapping the steps we've identified on the road to soft skills mastery.

1. Know which conventions are operating, given the context.
2. Master the relevant conventions – your natural language as well as the conventions appropriate to the discourse.
3. Seek an appropriate level of precision in articulating your ideas.
4. Seek to understand the other person's context. Consider how they will understand your words. Understand which conventions map to their context.
5. Make use of other mechanisms besides your natural language to enhance your use of language.
6. Organize your thinking before you start talking. Pencil and paper.
7. Simplify your ideas. Analyze them. Synthesize them. Reduce them to their essential elements and share that much with the other person, allowing them to connect the dots.
8. Ensure you understand what the other person has said. Paraphrase, restate, clarify.
9. Ask questions to ensure the other person has understood what you have said.
10. Ask questions to discover things that have been left unsaid that should have been said. Try to understand what assumptions are being made. Make what's implicit, explicit.
11. Before engaging in any communication, ask yourself, why am I doing this? Know your purpose.
12. Know the other person's purpose. Don't let your purpose or theirs remain implicit. Ask why. Know why. Probe. Test. Discover. Clarify. Confirm.
13. Seek to meet that person's needs by achieving your purpose. Make your purpose a way to meet their needs.
14. Mastering soft skills means mastering relationships and that means mastering the ability to be "other focused".
15. You cannot expect that other person to understand you if you do not understand them, their perspective, their purpose, their needs. You cannot, you will not be understood if you do not understand.
16. The desire to understand derives from a genuine interest in that other person. And that genuine interest will motivate you to do the single most important thing you can do to ensure understanding, and thereby, ensure successful communication and the sharing of meaning.
17. Listen. Listen empathically. Listen for shared meaning. Listen for understanding. Listen to communicate.

Listen to realize the value of your hard skills, of your ideas.

Conclusion

Soft skills mastery means mastering the art of understanding the other person.

That's easy enough to say, but to put it into practice is a never-ending journey *of understanding yourself*.

Master that, and you will master soft skills. Master soft skills and the world will realize the value of your hard skills.

References

Intel (2010) *Intel® Core™ i7 Processor Extreme Edition, specifications*. Retrieved on 20 July, 2010 from

<http://www.intel.com/products/processor/corei7ee/specifications.htm>