

The Bioteaming Manifesto

A new paradigm for virtual,
networked business teams



by Ken Thompson
and Robin Good

The Problem

Today's virtual business teams don't appear to be able to fully leverage the much touted opportunities offered by always-on interconnectedness, easy access to unlimited information sources and real-time communication tools.

While much of the Internet-generated new media revolution talks about greater and more effective collaboration opportunities, business teams appear to be engulfed by:

- technology adoption issues
- lack of effective communication approaches
- reliance on old traditional work methods
- absence of strong team motivation
- effective cooperative workflows.

The adoption of new tools without the parallel development of a new culture that supports their use and the potentialities opened by these new media scenarios is typical of all neo-phyte phases of technology adoption. We have yet not uncovered the full potential available to us when we operate, like nature operates, as cooperative, highly motivated teams.

The Solution

The solution we propose to the above issues is the systematic study of nature's most successful living teams and the extraction of principles about their operational logistics, behaviour patterns, command-structure, communication methods that can provide us with useful guidelines on how teams need to operate to be truly successful.

It is our goal to analyze these principles and to see where and how some of the biological teaming principles can be transferred to the areas of organizational design, leadership, online collaboration, business networking, and human resources management.

It is our mission to show that true change can be enabled across organizational teams by leveraging nature's multi-million years of wisdom available to us by carefully studying highly effective biological teams.

Such discipline is to be named *bioteaming* and it consists of the research, mapping and identification of such key behavioural traits from nature's most effective biological-teams and in their re-definition within the context of new human-based business team workflows.

Part I : Why Organisational Teams Require More Than Internet Technology To Succeed

Organisational Teams Are Not Delivering

Over the last ten years organisational teams have become more distributed and complex. Despite the number of technologies available to assist teams and group-based work, it is still exceedingly difficult to manage teams.

And contrary to popular belief the introduction of new real-time conferencing and collaboration technologies can actually make things worse. It may distract team members from their application focus and drive them into ongoing loops of technology experimentation. In these situations, the focus on the work mission is often lost in favour of mastering and attempting to extract ever increasing benefits from technology itself.

What is dangerously lacking is **a culture of collaboration and cooperative learning** capable of becoming aware of the critical importance of adopting a set of behaviour-policies supportive of strong team interaction. Unless strong foundations are placed under the way we think and act as team members, no amount of whiz-bang technology will catapult online business teams from inefficient and expensive glamorous beasts to highly effective and productive units.

This is why we suggest looking at nature's most successful biological teams to uncover the secrets of extended cooperation and effective collaboration.

Nature offers us such an invaluable heritage of “best lessons learned” for how teams should be run, that we have decided to take true advantage of it by starting an ongoing research and study discipline around this topic called “bioteaming”.

Nature-derived lessons have been tested and tried over the course of hundreds of thousands of years under an infinite number of variables and scenarios. If we are smart enough to humbly analyze and dissect the core characterizing traits of nature’s successful team behaviours, we may gradually devise and architect their use and growth also within our human-based teams.

This is the key mission of Bioteaming: a painstaking review and analysis of the scientific literature in search for the common traits of nature’s most effective biological teams. Our goal is to identify, describe and transform such successful traits into human-compatible guidelines and principles that can be gradually adopted by virtual networked business teams.

The Changing Nature Of Organisational Teams

Nowadays, it is rare to find teams in which individuals: all know each other, sit in the same work area each day, work the same hours, share common physical work spaces, belong to and are paid by the same organisation, have a common business culture and enjoy a prior history of working together.

Today’s teams are a complex alliance of talented individuals from different organisations, departments, professions, and locations. Each member has a different skillset and is accustomed to using different technology tools. Today’s teams are comprised of individuals with different backgrounds, languages, cultures and education and involved in team activities in broadly varying degrees.

Today's teams are a very different animal compared to those many of you grew up with. In fact, the differences between past teams and today's are so significant that a new name is needed for today's teams — we like to refer to them as **Virtual Networked Teams**.

“Virtual” means that the team is dependent on Internet technologies more so than before. Less obvious, but equally significant, is the fact that “virtual” also means that the team operates with **“virtual capacity”**. Here virtual means “not physically present”. This also means that the team can constantly grow and shrink according to its needs.

“Networked” means that the team is made of dispersed and physically distant individuals who are interconnected and operate as an organic entity. These individuals do not utilize traditional reporting hierarchies; thus, old-fashioned “command and control” approaches are vastly ineffective.

We, therefore, define a **Virtual Networked Business Team** as **a team created by bringing together one or more co-operating groups of people to achieve a business objective**.

Such objectives include:

- **DESIGNING** and developing open-source software
- **PLANNING** and launching a major event
- **MARKET TESTING** of a new product
- **DEFINING** a marketing, awareness or advertising campaign on a global scale
- **IMPLEMENTING** improved business processes
- **PLANNING AND EXECUTING** change in management and training initiatives

We know that in the near future Virtual Networked Business Teams will be the **dominant means for getting major work done.**

The Challenges Of A Virtual Networked Business Team

Is it more difficult to operate a Virtual Networked Business Team than a traditional team?

THE VIRTUAL FACTOR

The “Virtual factor” is the first tangible obstacle that can be felt when dealing with the optimization of a virtual networked team. The challenge in successfully engaging a team in which many of the members have never met face-to-face can be quite surprising. Members of a virtual team may never attend a physical meeting with their colleagues. Their accessibility and communication modes may vary from one team member to the next.

THE NETWORK FACTOR

A Networked team does not share common reporting lines, business cultures and professional sensibilities. This makes it difficult to agree on standards, accountability structures and sanctions for non-performance.

THE TECHNOLOGY FACTOR

Technology is often a team component with its own cost of adoption and integration. The technology price to be paid by virtual networked teams can be daunting. Teams are often scared, if not altogether resistant, to the addition of new technologies that require steep learning curves and the adoption of unintuitive workflows. New technologies can be seen as

an intrusive partner that demands a lot but doesn't actually accomplish anything. They can be obstacles to getting the "real work" done; this is particularly true in the early stages of team formation.

THE BUSINESS FACTOR

In addition to the virtual, network and technology factors, work pressure driven by today's work environments creates the perfect recipe for stress. This stress will show itself in work groups by replacing harmonious and pro-active group support with hiding from responsibilities and tattle-telling.

Statistics on Virtual Networked Teams

Virtual Networked Teams are a relatively young phenomenon . There is little hard evidence available for how well they perform in real-world scenarios.

However one of the earliest forms of a Virtual Networked Team is **the typical IT project team**.

By its very nature the IT team is cross-functional and heavily interconnected (**Networked**). It integrates a wide mix of specialists (e.g. IT, change management and business staff). IT teams also embody some of the virtual factor as they expand and shrink (via the hiring of short-term consultants) according to the amount and complexity of assigned projects.

Statistics on IT project teams provide some enlightening information:

- **Only a third** of change initiatives achieve objectives (OPP Survey May 2004)
- **74% of IT projects** are unsuccessful (Standish Group Report 2000)
- **Only 1 in 5 IT projects** is likely to bring full satisfaction to their organizational sponsors (OASIG Study 1995)

These numbers reveal the quantifiable evidence that there is **something deeply wrong** in the way Virtual Networked Teams are operating in today's organisations.

Are Internet Technologies A Solution To These Problems?

With the emergence and maturing of a vast array of corporate-strength intranets, extranets, portals and a multitude of supporting real-time and asynchronous communications tools, there would appear to be a huge potential for technology to bring real gains to team productivity.

This would seem to be particularly true for those teams which are physically distributed or which are highly mobile.

Few people would dispute the potential benefits of effective real-time communication tools or of shared and secure workspaces.

However, in practical terms, hardly any of the supposed benefits are generally realized by teams utilizing these technologies.

Why?

Typically teams trying to be more effective through technology run into serious problems in trying to make it work for them including:

- 1 **TECHNOLOGY ADOPTION:** the investment needed to learn the technology greatly exceeds the potential benefits
- 2 **ACCOUNTABILITY ISSUES:** teams find it much easier to break virtual commitments than verbal ones
- 3 **TEAM MOBILISATION:** technology per se does not generally address the need for mobilizing action. It leaves teams using new tools without having first asked the proper strategic questions: who am I, where am I going, why do I want to get there?
- 4 **NEW WORKING PRACTICES:** novel and unfamiliar working practices are just too difficult to adopt within a short amount of time
- 5 **OVERFOCUS ON TECHNOLOGY AND PROCESS:** not enough focus on production of results

What we believe is that Internet Technologies are part of the problem, as much as they are also part of the solution.

Though they may be very useful they are not the critical component that will determine how effectively any group of networked individuals will cooperate toward the achievement of a business goal.

What is MISSING?

The fundamental thing missing from Virtual Networked Teams today is the open recognition of **the dynamic and living nature of the team itself as a separate entity from that of its individual members.**

A networked business team is a living entity in and of itself. A Virtual Networked Team is more than the sum of its members abilities.

An ant colony, one of nature's most efficient and successful living teams, has a life of its own — albeit intimately connected to the lives of its members.

In organisations we treat our teams **mechanistically**. We think of our teams more like **clocks or engines that are assigned to specific tasks and assignments. We want the highest control of them and we want them to be very** predictable in their work behaviour. Exactly the opposite of what nature's bioteams do. Interpretation of the team as a **whole, living entity**, allows a more insightful interpretation of the most efficient courses of team action.

The team is in itself a super-organism and as such it needs to be treated in ways that enhance and support its complex and interconnected nature. If you can see the team as a whole and not as the mere aggregation of the individual parts that make it up, you can discover how much more productive, reliable and efficient a virtual team can be.

Once you wrap your mind around this new way of looking at organizational teams you immediately need to **rethink** how such teams should be nurtured, organised and supported in effective and suitable ways.

Part II: How Can We Perform Better Than Nature's Teams?

There are two major differences between biological and human teams — **intelligence and autonomy**. Human teams have **vastly superior intelligence** to biological teams and **much greater potential for autonomous behaviour by individual members**.

Let's look at each one in turn.

A) The Intelligence Factor

Vastly superior team member intelligence, perhaps surprisingly, does not actually make a significant difference in how successful a team can be.

Since bioteaming, as we see it, is based on a **distributed intelligence model**, what really counts is the ability for the team to use its intellectual capabilities in a **collective, collaborative and cooperative fashion**. So while bioteams **CAN** easily accommodate highly intelligent team members, they do not generally require them

What is strategically important for operating as efficiently as a bioteam is the ability of team members to **be able to self-select when to utilize personal “intelligence” and critical thinking and when to rely on team intelligence before acting**.

B) The Autonomy Factor

Autonomy defines the ability of team members to choose what action to take in response to a given stimulus. More importantly autonomy provides individual team members the freedom to choose **how quickly** and with **what degree of commitment or force to act**. Biological teams (except for highly intelligent ones such as groups of primates or dolphins) automatically make a pre-determined *response without consideration or delay* when receiving a recognised *stimulus*.

*In biological teams there is nothing between stimulus and response. In human teams there is something between stimulus and response — **free will. Choice.***

Free Will And Beliefs In Human Teams

How we will act is influenced by the **beliefs** we hold regarding the situation we find ourselves in when we receive the stimulus.⁴ For example, if I do not feel I am being adequately supported or appreciated by the rest of the team, I may avoid action where there is a perceived risk of my failure.

Alternatively if I felt fully supported, I might take bigger risks. In simple terms — human teams have to address the critical issue of **team member motivation whereas biological teams do not.**

Effective bioteaming cannot be achieved in an organisational team which is suffering from poor motivation.

This is why to be really effective a human bioteam must also take into account the team beliefs and the motivations of its highly intelligent and autonomous members.

The Impact Of Individual Team Beliefs On Overall Performance

Unfortunately there is very little research about the impact of team member beliefs on overall team performance. The only study which partly addresses this issue is the unique work on “*Learned Optimism*” by Professor Martin Seligman.^B

Dr Seligman is a clinical psychologist who for the last twenty years has studied the areas of **learned optimism and learned helplessness** to help individuals deal with *depression and pessimism in their lives*. As a sub-topic within his research Dr. Seligman has explored how **optimism and pessimism** in team members impact the overall team performance.

According to Dr. Seligman’s research, optimistic teams will recover more easily from setbacks than pessimistic ones; this does not vary with differing levels of team members’ skills and intelligence.

Uncovering The “Hidden Beliefs” Of High Performing Teams

From what we have been able to find there is no other research in the public domain which **directly looks at the beliefs of team members in high-performance teams**. There is however excellent material on the detailed characteristics and behaviours of **high-performing teams** — two of which are *Hot Groups*^C and *Organizing Genius*.^D

According to our own personal experience and the research we have carried out on this topic High Performing Teams (HPT) are **immediately identifiable by the tacit, or hidden beliefs by which their general behaviour and attitude is determined:**

BELIEF 1: CLEAR AND PUBLIC ACCOUNTABILITY

HPT team members believe that every member of the team has a clear and public accountability. Every team member knows what she/he is responsible for and what she/he can count on the others for.

BELIEF 2. TRUSTED COMPETENCY

HPT team members believe that the rest of the team trusts them to know how to do their job properly without being supervised. In a multidisciplinary team this translates into “I know what you have to do and am confident you can do it — how you do it is your business.”

BELIEF 3: GIVE AND TAKE

HPT team members believe that if they need help they can ask for it and it will be freely offered. They believe that asking for help, with moderation, actually increases their standing within the team rather than diminishing it. They also believe something is wrong if somebody is struggling along and not asking for help or is asking for help but being ignored by the rest of the team.

BELIEF 4: TOTAL TRANSPARENCY

HPT team members expect to be kept apprised in an honest and timely manner of any important issues in the project even if the issue does not directly affect them. This is part of the

dynamic of every member believing themselves to share team leader responsibilities; therefore becoming capable of contributions beyond the ones normally dictated by their specific team role. HPT team members also believe that individual team members should be free to pass opinions about situations they are not directly responsible for and that these opinions should always be highly respected and listened to.

BELIEF 5. SHARED GLORY

HPT team members believe they are all in it together and that glory and pain will be shared. Like the four musketeers it is “*One for all and all for one*”. HPT team members do not believe that their leader will take an unfairly big portion of the credit for a success or all of the blame for a failure. Underpinning this is the belief that each team member is equally accountable to the leader and fellow team members.

BELIEF 6: MEANINGFUL MISSION VALUE

HPT team members believe that the group’s operational mission is significant, important and meaningful. They believe that if they are successful they will have made a fundamental contribution to their organisation and possibly to the greater good. If they saw the project as just ‘business as usual’ or routine, then their motivation would sag significantly. To foster this sentiment, the task must not seem trivial or easy or as if it has been done before. HPT team members also generally feel they are the **only people** in the organisation who could succeed at accomplishing such a difficult task.

BELIEF 7: OUTCOME OPTIMISM

Finally, as discussed under “Learned Optimism” HPT team members are confident that they (and they alone) will succeed in delivering the mission of the project.

Good Beliefs Make A Team Work Harder

One of the main consequences of nurturing a team to develop a deeply shared set of beliefs is a greater commitment and will by individual members to put in the necessary amount of work for the project to succeed.

If the team feels trusted, it acquires self-confidence and adopts a meaningful and responsible attitude toward realizing the mission successfully.

Bioteaming Includes Identifying Your Team's Beliefs

In this context the first step to an ambitious virtual networked business team is to try to honestly identify the current beliefs that each individual team members holds. Next, this set of beliefs can be compared with the seven “hidden”, high-performance beliefs reviewed above to identify the most appropriate team motivational drivers.

As is true for all beliefs, people can only be encouraged to modify them. It is next to impossible to mandate their change unless it is fruit of an individual conscious and voluntary decision. The most powerful techniques for modifying beliefs are those that excel at **illustrating the consequences of existing beliefs** while showcasing **the profiles and characteristics of alternative ones**. Such responsibilities would generally fall under the responsibility of senior and more experienced members of the team.

A human team operating in harmony with such principles, utilized by many of nature's most successful biological teams, would be able to operate as an *ultra-high-performing team, or as we like to say as a “human bioteam”.*

Part III: Nature's Solution To Teams

Bioteaming Introduced

Bioteaming is about building organisational teams that operate on the basis of the natural principles which underpin nature's most successful teams. Nature's most effective bioteams include:

- single-cells and multicellulars, the human immune system, the nervous system (including the brain),
- micro-organisms such as bacteria and social insects (ants, bees and termites),
- jellyfish, geese, monkeys, dolphins, big cats,
- forests, rivers, ecosystems, the earth (as Gaia).

Many scientific papers and books have emerged in the last two decades^E suggesting that the survival of the fittest is only half of the story of how living species were able to survive on this planet. What appears strategic in the emergence of successful living teams was the gradual development of symbiotic behaviours, which represented initial biological strategies to spontaneous cooperation.

How Bioteaming Actually Works

In our research into [bioteaming](#) over the last two years we have (so far) identified four bioteaming *action zones* and about a dozen bioteaming *action rules*.

These zones and rules constitute the **DNA of bioteaming**. They also present themselves as the **initial implementation recipe** for leaders who want to make their virtual business teams **significantly more productive** and **more effective at using virtual technologies**, by adopting the proven strategies and organisational structures tested and proven successful by nature's own best teams.

The four action zones are to a bioteam what the four chemical bases (A, T, G and C) are to DNA — their interdependencies and constantly repeating patterns provide the building blocks of the double helix structure *common to all living things*.

- ① Leadership zone
- ② Connectivity zone
- ③ Execution zone
- ④ Organization zone

Leadership Zone

Bioteaming trait: Treat every team member as a leader

RULE 1: STOP CONTROLLING

Communicate information — not orders.

Traditional teams issue orders and use two-way communications widely.

Bioteams provide ‘situational information’ to the team members who are trained to judge themselves what they should do in the best interests of the team. They move exceptionally fast because they mostly use *one-way broadcast communications* and use two-way communications only when necessary.

RULE 2: TEAM INTELLIGENCE

Mobilise everyone to look for and manage team threats and opportunities.

In traditional teams, it’s the leader’s job to provide most of the “Team Intelligence” — information on potential threats to, or opportunities for, the team.

In a Bioteam, it is every team member’s responsibility to constantly look-out for relevant *team intelligence* and to ensure it is instantly communicated to all other team members through a small but complete set of message protocols.

RULE 3: PERMISSION GRANTED

Achieve accountability through transparency not permission

Traditional teams protect themselves against *member mistakes* by establishing layers of permission which must be granted before a team member may take action in certain circumstances. We call these “*Permission Structures*”.

Bioteams slash down these “Permission Structures” to the absolute bare minimum. The only permission structures kept in place by a bioteam are those needed to protect the team against the potentially critical **mistakes which would threaten the sustainability of the bioteam’s own mission.**

Accountability in bioteams is achieved through ‘team transparency’ and ‘reputation-based’ systems, not through control and hierarchical authorization systems.

Connectivity Zone

Bioteaming trait: Connect team members, partners and networks synergistically

RULE 4: ALWAYS-ON

Provide 24x7 instant in situ message hotlines for all team members

Traditional teams expect their members to go somewhere, such as their PC, to “*get their messages*”. **Bioteams ‘take the messages to the team members’** via whichever device suits each individual member best at any particular time in their working day.

RULE 5: SYMBIOSIS**Treat external partners as fully trusted team members**

Traditional teams pay lip-service to team members from external organisations such as customers or suppliers in terms of *transparency and trust*.

Bioteams pick their partners very carefully but once they have committed to them they treat them identically to their own internal team members by **granting them full transparency and trust**.

RULE 6: CLUSTER**Nurture the team's internal and external networks and connections**

Traditional Teams don't think about their networks — they believe it's the team leader's job to make sure they have all the necessary resources.

Bioteams pay a lot of attention to the **collective networks** and relationships of each team member. This is to ensure they have adequate "*strong ties*" to get the work done well and that they can '**call in short-notice favours**' as needed from external parties.

These networking relationships ensure bioteams have sufficient "*weak ties*" to quickly receive and identify early warning signals, news, rumours and hard to access information. This helps them to anticipate important changes from the external marketplaces in which they operate.

Execution Zone

Bioteaming trait: Experiment, co-operate and learn

RULE 7: SWARM

Develop consistent autonomous team member behaviors

Traditional teams focus on team member individuality as a means of achieving creativity and innovation but neglect the *hidden power* of consistent member behaviors.

Bioteams have discovered that for a team to be really effective it is critical to count on the ability of the team to guarantee a pre-defined set of key tasks in a reliable and systematic fashion. This requires that team members are competent and aware of what the fundamental requirements are and that each one of the team members is willing and capable of attending to these fundamental duties when needed. Bioteam members take a proactive and responsible interest in anything which might affect the ultimate success of their project whether its **within their defined project role or not.**

RULE 8: TIT-FOR-TAT

Team members must learn effective biological and interpersonal co-operation strategies

Traditional teams try to play “*Win-Win*” and “*Collaborate*” but don’t actually have any practical strategies or tactics for achieving this. Traditional teams are not really interested in the **real, often raw, basic and undeclared, motivations of their teammates.**

Bioteams realise that “Win-Win” is an outcome, not a strategy, and use nature’s proven personal collaboration strategies to create the conditions for it to happen. Bioteam personal collaboration strategies also address the “*What’s in it for me?*” question for each team member.

RULE 9: GENETIC ALGORITHMS

Learn through experimentation, mutation and team review

Traditional teams believe that *analysis is the best way to get things right*. Consequently they engage in extensive planning, design and preparation tasks before trying out new things or releasing new products to their customers.

Bioteams believe that “live controlled experimentation” is the only way to get things right and that most things won’t work out as planned anyway, no matter how well they are analysed and designed. Bioteams quickly experiment with multiple alternative courses of action, often in parallel and in progressively larger increments to find out what works best. After they have collected sufficient data they build on and methodically apply the most promising results.

Organisation Zone

Bioteaming trait: Establish sustainable self-organisation

RULE 10: SELF-ORGANISING NETWORKS

Define the team in terms of ‘network transformations’ — not outputs

Traditional teams define their goals and roles in terms of the outputs and activities they are expected to produce — i.e. inanimate objects.

Bioteams define their goals and roles in terms of the transformations they intend to make in the people and partners they will engage with — i.e. living things. They are change agents by definition.

RULE 11: POROUS MEMBRANES

Develop team boundaries which are open to energy but closed to waste

In a traditional team the leader selects the members and the team effectively becomes “sealed” at the pre-ordained “right size” in terms of members very early in its lifecycle. There is a big focus on full-time members as the team “product engines”.

In a bioteam the members select the members and recognise that the “right team size” will only emerge over time no matter what the plan says.

Bioteams keep looking for new, useful team members throughout their team life-span. Bioteams particularly seek out part-time members, advisors, experts, “jungle-guides” and external allies who can help them just-in-time as necessary.

RULE 12: EMERGE

Scale naturally through nature’s universal growth and decay cycles

Traditional teams grow as quick as they can to the agreed size and as per the agreed project schedule.

Bioteams are aware that growth is not something that can be managed or controlled. The team leaders and members treat their own bioteam like it is a “living thing” and watch for and facilitate natural opportunities for its growth.

Part IV: Summary

The Problem

Today's virtual business teams have yet to use team-based technologies to their full advantage.

While much of the Internet-generated new media revolution talks about greater and more effective collaboration opportunities, business teams appear to be engulfed by technology adoption issues, lack of effective communication approaches, reliance on old traditional work methods, absence of strong team motivation and of effective cooperative workflows.

The reason this happens, we contend, is that we have fundamentally failed to recognise the innate living nature of organisational teams in themselves separate from their members. We treat our teams mechanistically, like clocks, to be commanded and controlled and cannot understand why they constantly misbehave and surprise us.

We have not yet learned to nurture and nourish these teams like living entities where spurts of growth emerge unpredictably despite, and even in spite of, all our plans, roadmaps and timetables.

The adoption of new tools without the parallel development of a new culture that supports their use and the potentialities opened by these new media scenarios is typical of all neo-phyte phases of technology adoption and it reflects the very early stages of evolution we are still at in becoming effective team players of this technology-driven information economy.

The Solution

We propose that the solution is to recognise the autonomous aspects of business teams and networks and to learn how nature's most successful biological teams operate.

We propose a new discipline called *Bioteaming* dedicated to examining what virtual business teams can integrate and adopt from the operational principles guiding the most effective biological teams.

Our initial framework integrates four bioteaming action zones and twelve action rules which embody techniques and principles that can be immediately transferred to any virtual business team.

We have seen that there is a great deal that can be learned from nature's most successful living teams but we also acknowledge the profound impact that human dimensions of intelligence, beliefs and motivations has on effective interpretation of these operational guidelines.

Our research clearly shows that team members' beliefs have a huge impact on a team's overall performance. Therefore we have made the examination of the team members' beliefs and the understanding of how to best leverage them a central tenet of bioteaming. In this light, we have identified seven key beliefs of high performing human teams as the final piece in our first bioteaming definition.

We believe that the combination of bioteaming principles with supportive coaching/leadership, and appropriate technology driven by a cohesive set of beliefs can produce *ultra-high-performing teams, groups, communities, networks and even organisations* that can outperform today's mechanistic and hierarchical organizational teams.

FOR MORE INFORMATION PLEASE SEE:

1. The Bioteaming Conundrum

http://www.bioteams.com/2005/08/04/the_secret_dna.html

In the research into bioteaming we have (so far) identified four action zones and about a dozen action rules. These constitute the DNA or recipe book for leaders who want to make their organisational/project teams significantly more productive through the use of virtual technologies.

2. The hidden potential of human teams goes beyond nature's best efforts

http://www.bioteams.com/2005/08/29/the_seven_beliefs.htm

There is one other area a team needs to address as part of a bioteaming strategy if it wants to be exceptionally successful — team member beliefs. In this article we suggest the seven hidden beliefs of high performing teams.

3. How a team can become more productive by using three simple rules

http://www.bioteams.com/2005/07/01/virtual_team_productivity.html

In this article we introduce and identify the first key overarching principle of Bioteams and define the first three action rules.

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ENDNOTES

- A *Man's Search for Meaning*
- B *Learned Optimism: How to change your mind and your life*
- C *Hot Groups: Seeding them, feeding them and using them to ignite your organization*
- D *Organizing Genius: The Secrets of Creative Collaboration*
- E *The Symbiotic Planet: A New Look at Evolution*

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ABOUT THE AUTHORS

Ken Thompson is an emergent leading expert in the area of virtual enterprise networks, virtual professional communities and virtual teams. His strategy includes the use of a unique set of team workshops, multiple coaching interventions and the effective integration of a small toolkit of virtual collaboration technologies. He is now developing software, templates and task-specific tools to support the development of high-performance teams. Ken is founder of the www.bioteams.com blog which is a unique online web site dedicated to the explanation of bioteaming concepts and to the reporting on new research becoming available in this new study area.

Robin Good (www.kolabora.com) is an online publisher (www.masternewmedia.org), researcher, and writer on the smart and intelligent use of new media technologies for effective communication. Robin, an expert in interface, information and identity design, is also recognized on the Internet as a reputable independent analyst, trendspotter, and opinion-maker in many different fields including new media, online collaboration, independent publishing (www.theweblogproject.com), communication skills (www.masterviews.com) and social change (www.communicationagents.com).

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First, make sure you have the latest version of Acrobat Reader 6 which you can download from <http://www.adobe.com/products/acrobat/readstep2.html>. If problems persist, it may be due to your Acrobat Reader settings. To correct the problem (for Windows), a reader, J. Hansen, suggests going to your Acrobat Reader Preferences > Options > Web browser Options. Check the "Display PDF in Browser" option. Then click on Save to Disk .

KEYBOARD SHORTCUTS

	PC	MAC
Zoom in (Larger view)	[CTL] [+]	[⌘] [+]
Zoom out	[CTL] [-]	[⌘] [-]
Full screen/Normal screen view	[CTL] [L]	[⌘] [L]

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BORN ON DATE

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