Lessons in Collaboration: How to Make a Partnership Work  
By: National Center for Technology Innovation (NCTI) (2005)

“We need a more collaborative environment in the field by stakeholders. And I mean all the stakeholders. We all need to put our energies towards that goal, that bottom line, which is the same for all of us: to improve the lives of people who need AT.”—David Dikter, ATIA

Greater collaboration in the field of assistive technology (AT) would lead to better, research-based products moving through the marketplace and reaching users. Vendors who work well with researchers make more powerful products. Researchers who collaborate effectively with business get the support they often need to innovate and have the satisfaction of seeing their inventions improve the lives of real people. But what are the key elements in making a collaboration work, from first inquiries, through getting down to work, to a sustained partnership that enables a team to innovate, create, adapt, test, and readjust good and saleable products over the long term?

The collaboration case studies published on NCTI’s website in the past year provide lessons. Examples ranged in type and size. Some were single projects, other partnerships continued over years, supporting whole portfolios of product development. Most resulted in commercial product—but one supported a journal and another, technical assistance and policy work. Two involved people with disabilities in leadership roles. Two were global in scope. Beneath the differences, however, similarities persisted, and those repeated themes suggest strategies for success.

Three Phases of Collaboration

While some lessons applied across the lifetime of a collaboration, some seemed to be more relevant during one particular period. Three phases of collaboration emerged:

1. Getting Together, an initial period where partners get to know one another, set expectations of roles, and determine goals.
2. *Building the Foundation*, getting the project up and running together.

3. *Developing and Sustaining the Vision*, when partners continue to solve problems together, but also may make adjustments to their initial agreements, as they build a longer term working relationship.

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**Phase One: Getting Together**

1. **Define roles, responsibilities, and outcomes.**

   In the first phase, successful collaborators define roles, responsibilities, and desired outcomes. Check for these, and put them in writing if necessary:
   - Clear expectations,
   - Clear responsibilities, and
   - Shared commitment to clearly articulated outcomes.

Many, like Matthew Kaplowitz of Bridge Multimedia, get roles and responsibilities detailed in writing. “The thing that sinks collaborations is a lack of clearly defined expectations of the results you’re aiming for,” he says. “I get a letter of agreement out, early on, to see if everyone’s looking at the project in the same way.” Kaplowitz soon finds out whether he and his partners are, literally, on the same page when thinking about roles, products, and deadlines. “If all of a sudden things fall apart, if they don’t agree with you about those basics, you have to be able to walk away.” One thing
that is essential to get straight from the start is the assignment of Intellectual Property (IP). Steve Landau negotiated IP rights for his project with Gaylen Kapperman. Touch Graphics has learned from a bad experience: it shares IP with a university on one of their most important products. That agreement has resulted in morale-eroding mistrust, time-consuming and expensive legal services, and disruptive audits. “In any collaboration, it is important to establish who owns the IP,” says Landau. “Academics, generally, are getting paid a salary to research and publish. The grants we get together support the work. In our experience, shared IP has been nothing but a hurdle to success.”

2. Learn, assess, and build trust.
Successful collaborations take the time for partners to mutually assess capacity, judgment, professional habits, and trustworthiness. These are some of the questions you should have answers to, either by asking, by observing behavior, or by researching your possible partner’s history:

Make sure that your partner has the knowledge and skills you need.
Does he or she possess:
- Insight,
- Knowledge,
- The ability to appreciate the expertise of others,
- A history of successfully delivering what he or she promises, and
- The demonstrated ability to handle the responsibilities he or she has agreed to deliver for this project?

“When we got to the point of licensing, we felt that both sides knew one another well. The Navy knew that American BioHealth Group was going to do what it said it would do, and we knew the same of them.”—David Karlman recalling the preliminary stages of tech transfer for The Hearing Pill™

Make sure that you and your partner are compatible.
Does he or she have working habits that fit and complement yours? Even in the early stages of getting to know another professional, it is possible to get a strong sense by careful unclouded observation of whether you work well as a team.
- Does your counterpart deliver a response that is timely but also thorough, thoughtful, and on-target?
• Are content and style suited to your way of working on problems and projects?

Compatibility between Primary Investigators is essential for successful tech transfer, says Nick Zelver of TechLink, a federal TT intermediary. “It really has to click on the personal level. A license is a relationship. A CRADA [Cooperative Research and Development Agreement] is a relationship. If the relationship works, it becomes much easier to define mutual benefits, to explore related research.”

**Make sure that each of you brings something essential to the project.** Collaborations often work well when different skills, experience, and resources come together to make a whole. Strong teams are built on diverse abilities.

- Does your partner deliver something you can’t, or something from a network you’re not attached to, or something you would never have come up with yourself, which improves the project?
- Do all partners understand that each is obligated to responsibly deliver, since each provides something essential for this project that other partners lack?

David Dikter says of Phil Parette, his partner in running the journal Assistive Technology Benefits and Outcomes (ATOB), “Phil takes the lead on all the editorial process. I get involved with review towards the end, and with marketing. Phil is involved with the Awareness Committee, and I integrate the journal into the conference. Phil and I are in contact, but not daily, nor would we want to be. For me it has been a delight to do this work. It all feels like a breeze.”

“I need resources, money—and that’s always getting harder to find,” says Gaylen Kapperman, describing his partnership with Steve Landau of Touch Graphics. “The SBIR grant is a good option. Without Steve, I don’t stand a chance to get the grant, because it’s a business-based award. And without me, he has no vehicle for the grant: I’ve got the background and he needs projects.”

**Make sure that your partner seems to you trustworthy.** Assessing intellectual and professional compatibility has an intuitive component. If you are careful and analytic, your first impressions are likely to be right.

- When you talk about issues and trends, do you tend to see eye-to-eye, or, if not, do you leave the conversation feeling that the differences have been productive and the interchange fruitful?
In these early stages, does a dynamic develop where all partners are open, honest, and clear?

Gaylen Kapperman checks credentials first—but also believes that part of his assessment of a partner like Steve Landau is based on instincts that he has developed over years of working collaboratively. “I can tell from the way he talks,” says Kapperman. “The tone of his voice. He’s honest and forthright. I always start out somewhat skeptical, and usually I like to meet someone face to face, but even over the phone I was certain that Steve was no scoundrel.”

Make sure that you and your partner have strong mutual respect, even at the beginning.

It is important that both parties understand one another, have assessed one another, and respect one another. Trust and respect are not always quantifiable but they are, nonetheless, essential in any collaboration.

Steve Landau’s attitude toward Gaylen Kapperman is similar to the one Kapperman has towards him: “When we talk, we see each other’s points. Touch Graphics has lots of partners and at this point I can tell when it’s going to work. Gaylen’s a pleasant guy and very smart. Of course I knew who he was before this ever came up. He’s got a tremendous reputation.”

3. Make sure that both parties benefit.

A collaboration is sure to flounder unless there is mutual benefit. Be sure that all partners will benefit in at least one of the following ways:

- Financially,
- Intellectually,
- By improving services and opportunities for people with disabilities, or
- In satisfying a need to achieve, contribute, create, or change the world.

In the Liberated Learning/IBM collaboration focusing on an automated captioning system, a powerful symbiosis of mutual interest and benefits keeps energy and enthusiasm high. IBM acquires teams around the world that try out new ideas and bring them the results, and the Liberated Learning partners in Nova Scotia, the USA, Ontario, and Australia are able to solve problems directly with some of the greatest minds in computer science. For ATIA and SEAT, their collaboration supporting the
journal ATOB satisfies missions on both sides—ATIA representing industry and SEAT representing researchers—and strategic organizational needs for both organizations. By the end of Phase One, both parties should agree on the terms and goals of working together, see and begin to trust one another, and understand that the process and the desired outcomes create valuable results for both sides.

Phase Two: Building the Foundation

In Phase Two, collaborators get down to work. The excitement of a new alliance fades, replaced by key strategies that cement relationships with partners and users and build long-term stability from the very start.

1. Create short-term benefits to cement commitment.

Whether it’s getting trial software in the hands of users, completing or adapting a tool that can bring your development of a product to the next stage, or simply working together effectively to meet a deadline, getting something accomplished early on brings satisfaction (and confirms that positive assessments in Phase One were accurate). Here are a few of the ways in which short-term benefits cement commitment:

- The partners’ initial belief in the collaboration is reinforced, morale improves, and pride in the team effort increases,
- Enjoying intermediate results actively involves and invests partners more deeply in the project, and
- The desire to help someone learn, often a key motive, is satisfied.

Premier Assistive Technology, which builds its business on widespread distribution of its product, persuades some users by making software just a little easier for individuals to use. Steve Timmer “retools a [Premier] product if it doesn’t work,” says Dr. Christopher Lee, Premier’s partner at the University of Georgia. “Or if it doesn’t meet the need. He doesn’t want it to be hard. He sees a person struggling and he just says, ‘Hey, it’s easier for me to fix it than it is for you to work through it. Let’s make it easy.’” That
adjustment makes the user feel valued and enables them to easily give the Premier tool a trial run. For an academic, simply having a new, more practical point of view from which to assess research can be a valued benefit. Jill de Villiers, a Professor of Psychology and Philosophy at Smith College and Tom Roeper, from the University of Massachusetts, critique scripts for software for Mary Wilson at Laureate Learning. Wilson also asks de Villiers and Roeper to keep track of new work from conferences and meetings they attend. “It separates the wheat from the chaff,” says de Villiers. “We’re leaving a meeting, and we’ll talk about what we heard about, and we think about what we could bring back to Mary, and some of it just doesn’t seem as important because it hasn’t really got an application. It gives us another dimension to use in assessing value in the field.”

2. Stabilize revenue and multiply learning through simultaneous projects with a range of partners.

Many collaborators partner with many people and organizations simultaneously. Often, similar or same products are implemented in different settings with different users.

- Multiple projects at different stages provide a steady stream of product, stabilizing business revenues.
- Greater numbers of partners connect the work to a greater number of funding opportunities and, often, more diverse funding streams.
- Different organizations bring diverse points of view to the same idea or initiative.
- Findings from one project can benefit another.

Steve Landau, commenting on his own partnerships, said that “to sustain a business, I need to be developing projects at all stages, all the time.” Matthew Kaplowitz puts it this way: “There’s never enough and there’s always too much. Right now we’ve got three front-burner projects and three back-burner projects, and other projects continually come bubbling up to the surface.” Steve Jacobs works from several points of view, advancing ideas to different audiences simultaneously. He articulates how accessibility could be widely applied in analysis and policy papers for distinguished organizations including the National Council on Disability. Jacobs also helps to create governmental and industrial demand for those applications in his collaborative work at the World Bank and by providing outreach and technical assistance to industry through ITTATC, the federal Information Technology Technical Assistance and Training Center funded under NIDDR. Ken Grisham and Steve Timmer of Premier partner with a
range of institutions as they provide free software to as many as 14 million students nationwide. In return, they get a foothold in new markets, a presence in larger organizational systems, millions of free test-drives guiding program improvement, and they make users along the entire spectrum of needs comfortable with AT.

3. Keep partners engaged through intellectual excitement.
In the field of Assistive Technology, partners often feed on exchanging ideas, imagining new possibilities, understanding from different perspectives how people learn, finding ways to design something that is useful in a new way, or applying existing knowledge to a new use.

Both Jill de Villiers and Laureate CEO Mary Wilson find their review sessions dynamic, intellectual, and fun. “She’s a great student!” de Villiers says of Wilson. “She questions us continually. We can’t speak vaguely—she immediately challenges us: ‘What do you mean?’ And she wants practical solutions. It’s great for us intellectually, too.” In turn, the meetings satisfy Wilson’s own need for intellectual growth—keeping her excited about ideas and about incorporating those powerful ideas into better and better products.

By the end of Phase Two, a collaboration should have high levels of trust and evidence of success working together. This foundation supports partners as they move into mature collaboration, in which differences are aired and project goals reviewed and possibly revised.

Phase Three: Developing and Sustaining the Vision

Collaborations come to maturity in Phase Three. Successful partners come to consensus through differences, continuously attend to the needs of the business end, and have the patience and persistence to develop projects in light of changing needs and opportunities.
1. **Couple honest disagreement with a need to cooperate.**
This dynamic lies at the heart of healthy ongoing problem solving. In a strong collaboration, each partner brings something essential for success. Each must be heard, but none can dominate. Effective partnerships include forums where partners solve problems together.

- Honest disagreement is often the first step in articulating ideas, testing hypotheses, and solving problems.
- Cooperation and compromise prevent the work from stalling and falling victim to power struggles that can devour the energy needed for running and developing the project.

All major decisions for ATOB, the joint publication of ATIA and SEAT, are discussed and reviewed by ATIA’s Awareness Committee. There, ATOB Editor Phil Parette of SEAT and Associate Editor David Dikter of ATIA benefit from the wealth of knowledge and skills provided by the Committee and have a place to bring up issues, to have differences over issues, without locking horns on issues. When Liberated Learning’s globally-located partners communicate across the wires and in annual meetings, dissent and disagreements fuel a positive examination and often heated discourse. “Finally, the group always strives to come to consensus. We determine annual R&D priorities after a great deal of discussion, but we determine them as a group,” says Keith Bain. Steve Timmer of Premier is widely known for his unwavering commitment to universal access. One of his partners, Dr. Christopher Lee, had to ask him to rewrite a Closing the Gap proposal so that it would cover only some students. “When I had to tell him to pull back, frankly, I was concerned about how he was going to respond, because Steve is passionate about universal access. Well, not only did he understand, he instantly changed gears. To him, this was a hurdle, and so we needed to get past it. Sometimes passion can get in the way of going forward, but not with Steve. He just said, ‘Right. Okay. Let’s quickly solve that problem and move on to the next challenge.’”

2. **Pay attention to the practical business end.**
The vision is made real only when manifest in real-world applications—and the project will be sustained only if funding continues. Collaborators pay appropriate attention to the business end when they:

- Articulate the practical benefits of the product,
- Take whatever steps needed under their jurisdiction to help get the products to market, and
• Use their time wisely, even if it means not pursuing some opportunities.

“The ‘accessibility story’ is easy to communicate, and it is apparent to customers that an ‘accessible solution’ clearly trumps an ‘inaccessible solution.’ Why exclude the 54 million people with disabilities in the United States, and the even larger set of people with disabilities worldwide from your customer set?” says Sara Basson of IBM, the strategic-thinking, determined product developer, advocate, and manager connecting Liberated Learning to IBM. The technology for The Hearing Pill™ came out of a Navy lab, and after American BioHealth Group (ABG) licensed the technology, the Navy ran several major trials, funded by ABG, which confirmed that the compound is effective in preventing hearing loss from noise exposure. The trials were necessary in order to get FDA approval for the marketing and sale of the technology as a preventive device. Ken Grisham has the business background to ensure that he and Steve Timmer’s company will continue to exist. Sometimes that means holding back Steve, who sometimes wants to convince and include everyone he meets. “There’s something I call the Seven Percent Pool,” says Ken Grisham. “I tell this to Steve. Seven percent of people are just not going to like you. They don’t like how you look, how you think, they like nothing about you. Just walk away. Don’t burn energy on them. Early on, I think we were too forgiving. Some people applied to the grant program who had no commitment. They thought in limited ways. They couldn’t get senior management to support the technology—there were a few who couldn’t even tell senior management they had the technology—and if senior management doesn’t approve, you’re never going to get anywhere. These are people who are regimental, by the book, and glued to their comfort zone. We know them when we see them, and we just move on.”

3. Be patient and persistent.
Patience and persistence are often necessary in the AT world. Despite the fact that AT has the potential to help millions of learners achieve their full potential, case study interviewees cited barriers to widespread implementation including intractable attitudes both among key gatekeepers and in the general public, demanding business cycles, and unresolved questions on research priorities and design priorities. Virtually every partner interviewed:
• Had a deep commitment to a larger mission,
• Articulated that commitment with passion and conviction, often describing a literal vision of a changed future that sustained them, and
• Shared that vision with collaborators.

“People can see the future when they see this in action,” Keith Bain says. “We all believe that someday this will be everywhere, as ubiquitous as a blackboard. Because of that, we’re all willing to live on that edge, with its wins and its losses.” “These products should be like cellphones or VCRs,” Ken Grisham declares. “Once they were scarce and expensive. Now every other teenager on the globe has a cellphone. If you make a utility for everyone, which we think we do, it should be at the end of everyone’s arm. . . . It will take time,” he concedes. “Not because of technical issues, but because people take time to change the way they think.” “I am a patient individual,” says Steve Jacobs, “and I know this is the right thing to do, for a lot of reasons. So I keep working at it, and I’m willing to wait.”

Greater Opportunities Through Collaboration

The market for AT continues to grow, thanks to greater integration of people with disabilities in the so-called mainstream, and especially in the mandates of No Child Left Behind, the AT Act of 2004, and IDEA 2004. Computer-based tools used to create AT have multiplied exponentially. Opportunities to reach more people with more effective tools are constantly growing.

These opportunities are met best when researchers, developers, and vendors work well together from the start. Effective collaboration is the key. When the needs of researchers and developers are met, products are based on the best information and understanding, established evidence and proof of theory. When the needs of vendors are met, those research-based products can be effectively marketed to reach the right users. Strong sales benefit everyone: the users, the business team, and the researchers.

To guide you in setting up a collaboration, refer to these lessons. When the partnership hits a rough patch, see if these lessons can help you and your partner to define and settle your differences. Although each AT collaboration is different, most can benefit
from the lessons of others, and all have the same goal: to improve the lives of people who need AT.

Getting together may be a protracted process or relatively quick—but while partners are taking those first steps, they need to take a close look at one another—and be honest in presenting themselves. A foundation of clear expectations, assessment, trust, and shared benefit will enable the collaboration to thrive.