University of Massachusetts Amherst

Office of the Chancellor

March 25, 2020

Legal Division State Ethics Commission One Ashburton Place Boston, MA 02108

RE: Disclosure under M.G.L. Chapter 268A, Section 6

Dear Sir/Madam:

Pursuant to M.G.L. Chapter 268A, Section 6, I enclose the following documents for filing with the Ethics Commission as required under the statute:

- 1. Disclosure of Financial Interest form, dated February 6, 2020, and Memorandum, dated March 5, 2020, from Research Professor Beverly Woolf to request permission to employ her brother-in-law, Dr. Burton Woolf, as a facilitator for the follow-up workshop entitled: "Developing Career Paths and Technical Skills for Manufacturing Workers" to the NSF (award #1936915) sponsored workshop entitled, "DIRECT: A Framework for Diagnosis, Recommendation, and Training in Continuous Workforce Development" to be scheduled on or about March 27, 2020.
- 2. My letter of determination, dated March 25, 2020, which permits Research Professor Beverly Woolf to employ her brother-in-law, Dr. Burton Woolf, as a facilitator for the follow-up workshop entitled: "Developing Career Paths and Technical Skills for Manufacturing Workers" to the NSF (award #1936915) sponsored workshop entitled, "DIRECT: A Framework for Diagnosis, Recommendation, and Training in Continuous Workforce Development" to be scheduled on or about March 27, 2020.

Very truly yours,

-DocuSigned by:

tumble R. Subbaswamy

Kumble R. Subbaswamy

Chancellor

Enclosures

DISCLOSURE BY NON-ELECTED STATE EMPLOYEE OF FINANCIAL INTEREST AND DETERMINATION BY APPOINTING AUTHORITY AS REQUIRED BY G. L. c. 268A, § 6

	STATE EMPLOYEE INFORMATION
Name:	Beverly Woolf
Title or Position:	Research Professor
State Agency:	College of Information and Computer Sciences
Agency Address:	University of Massachusetts, Amherst 140 Governors Dr. Amherst, MA 01003
Office Phone:	(413) 545-4265
Office E-mail:	A257 LGRC
	My duties require me to participate in a particular matter, and I may not participate because of a financial interest that I am disclosing here. I request a determination from my appointing authority about how I should proceed.
	PARTICULAR MATTER
Particular matter	Please describe the particular matter.
E.g., a judicial or other proceeding, application, submission, request for a ruling or other determination, contract, claim, controversy, charge, accusation, arrest, decision, determination, or finding.	I request permission to hire my brother-in-law, Dr. Burton Woolf, to facilitate a one-time NSF sponsored workshop to address issues of communication among academics, government officials and industry executives. For this new NSF funded project, Dr. Burton Woolf will design and facilitate a planning workshop in March 2020 at UMass-Amherst and provide, as necessary, advance and follow-up support services in connection with the workshop. The overall purpose of the workshop is to create a draft of the Phase II proposal and a required presentation (pitch) to NSF. This research is a high priority for the White House and the National Science Foundation. NSF acted under a very tight timeline to award funding for this work and see at UMass need the services of Dr. Burton Woolf to succeed in this work.
	Information about the study and Dr. Burton Woolf's role The NSF award is #1936915, "DIRECT: A Framework for Diagnosis, Recommendation, and Training in Continuous Workforce Development." It addresses worker reskilling and retraining and will collect and analyze data from a large partner corporation in the manufacturing industry and will interview real workers and stakeholders. The research team will need to converge in terms of their expertise in computer science, education technology, and social and economic analyses of the labor market to propose an effective, fair, and scalable software solution that can help a broad segment of workers in the US workforce, in the manufacturing industry and beyond. The research focuses on building a "smart job matcher," a system that uses artificial intelligence (AI) and deep learning to diagnose a worker's skills and detect the skill gap between the job he/she has and the skills required when AI and robots enter the workplace. This research will guide workers through the process of job selection and upskilling in their entire career. We will develop a software framework that performs worker profile diagnosis, training program, recommendation, and intelligent training.
	In Phase I we explored a framework to perform worker profile diagnosis, training program recommendations, and intelligent training platform development for the purpose of continuous workforce development. We developed a prototype career path recommendation system to connect workers and unemployed personnel to their next job. This prototype involved analyzing the evolving labor market and identifying key skills required for new, high-demand jobs. Dr. Burton Woolf will organize a one-day workshop titled "Developing Career Paths and Technica Skills for Manufacturing Workers" to prepare our Phase II NSF proposal and to facilitate communication among various partners, including experts from Stanley, Black and Decker, and Mass Hire, Holyoke in addition to UMass faculty from AI, data science, economics, labor, and

In Phase II we will focus on leveraging machine learning (especially deep learning) methods to build a robust recommender system that identifies skill gaps between workers and desirable future jobs and recommends alternative career paths and training programs to connect workers to their next job. This includes analyzing the evolving labor market and identifying key skills required for new, high-demand jobs. We will also develop models that can analyze both worker performance and behavior to help diagnose the skill levels, strengths, and weaknesses of each worker in an onjob setting. We will develop a series of training experiences and platforms that enable real-world stakeholders to develop training programs that mimic real-world tasks in future jobs to train workers on the required skills.

These efforts will help us better understand the human-technology partnership and the emerging socio-technological landscape, create new technologies to augment human performance, and foster lifelong and pervasive learning with technology. This tool for future career path and training program recommendation will benefit employed manufacturing workers as well as unemployed people. Most of the components in our recommendation program apply to any worker, e.g., skill assessment tools help any worker assess their own skill level and labor market trends inform any worker about skills in high demand. Preparing this AI-ready workforce requires an enhanced focus on training, skill assessment, reskilling, and lifelong learning programs to better match Americans' skills with the needs of industry. It expands opportunities for all Americans to gain the skills needed to participate in an AI-ready workforce, including those from diverse backgrounds who are historically underrepresented in industry.

The goal of the workshop is to develop create a draft of the Phase II proposal and a required presentation (pitch) to NSF and a body of commercial experts. An experienced facilitator is essential for the successful completion of the workshop goals to guide an interdisciplinary team towards a unified vision and plan.

Your required participation in the particular matter: E.g., approval, decision, recommendation, rendering advice, investigation, other.

Please describe the task you are required to perform with respect to the particular matter. Dr. Burton Woolf will focus on the following tasks:

- To prepare for the workshop, Dr. Burton will review the research materials to give guidance to the PI and Co-PIs.
- Prior to the workshop, work with PI and Co-PIs, to develop a process to meet the outlined goals, coordinate logistics for the day, and engage participants in advance.
- During the workshop, lead the team and subcommittee discussions and ensure the goals have been met by the end of the day.
- After the workshop, provide follow-up summary and support.

Dr. Burton Woolf's background and expertise

Dr. Burton Woolf is unique in that he focuses on adult transformative learning within organizations, and how to achieve institutional missions and visions. He has rare and exceptional skills and education. He is a master group process facilitator, adept social networker, and power user of technology applications. He has facilitated many groups at UMass-Amherst, including the successful fall workshop for this project (see attached resume).

The quality of the workshop experience itself will play a critical role in the success of our NSF research and proposal efforts. With a workshop entailing a discussion among high-level professionals, we will need to maintain the continuity of the fall workshop with exceptional attention to detail in both the logistical aspects and process design of the workshop.

The NSF research requires creative problem solving, consensus-building, and participatory decision-making. Thus, it is crucial to provide a professional experience that allows the participants to focus on their task and that all activities be organized and implemented impeccably. We can count on Dr. Burton Woolf to do this.

Write an X by all that apply.

FINANCIAL INTEREST IN THE PARTICULAR MATTER

- I have a financial interest in the matter.
- _X__ My immediate family member has a financial interest in the matter.
- My business partner has a financial interest in the matter.

	 I am an officer, director, trustee, partner or employee of a business organization, and the business organization has a financial interest in the matter. I am negotiating or have made an arrangement concerning future employment with a person or organization, and the person or organization has a financial interest in the matter.
Financial interest in the matter	Please explain the financial interest and include a dollar amount if you know it. I have enlisted the services of Dr. James Allan, Professor & Chair of the Faculty, College of
	Information and Computer Sciences, to be his supervisor for pay determination and performance evaluation. Dr. Allan, along with Dr. Laura Haas, Dean of the College, have already written letters of support to hire Dr. Burton Woolf.
	The proposed NSF Fee of \$8,000 will be between .04 and .07 (4%-7%) of the total earned consulting revenue for Dr. Burt Woolf for academic year 2019/2020.
Employee signature:	BNoald
Date:	February 6, 2020

DETERMINATION BY APPOINTING OFFICIAL

	APPOINTING AUTHORITY INFORMATION
Name of Appointing Authority:	Kumble R. Subbaswamy
Title or Position:	Chancellor
Agency/Department:	Chancellor's Office
Agency Address:	374 Whitmore Administration Building
	University of Massachusetts – Amherst,
	181 Presidents Drive
	Amherst, MA 01003
Office Phone:	(413) 545-2211
Office E-mail	chancellor@umass.edu
	DETERMINATION
Determination by appointing authority:	As appointing official, as required by G.L. c. 268A, § 6, I have reviewed the particular matter and the financial interest identified above by a state employee.
Write an X	X I am assigning the particular matter to another employee, or
by your selection.	I am assuming responsibility for the particular matter, or
	I have determined that the financial interest is not so substantial as to be deemed likely to affect the integrity of the services which the Commonwealth may expect from the employee.
Appointing Authority signature:	DocuSigned by:
	teumble R. Subbaswamy
Date:	3/25/2020 12:13:05 AM EDT
Comment:	

Attach additional pages if necessary.

File copy with: State Ethics Commission, One Ashburton Place, Room 619, Boston, MA 02108

University of Massachusetts Amherst

College of Information & Computer Sciences

March 5, 2020

Dr. Kumble R. Subbaswamy Chancellor 374 Whitmore Administration Building, University of Massachusetts – Amherst,

Dear Dr. Subbaswamy,

This is an Ethics Disclosure request to hire Dr. Burton Woolf, my brother-in-law, as a facilitator for a follow-up one-time workshop for the National Science Foundation (NSF) supported research on the Future of the Workplace. This research is a high priority for the White House and NSF. This project has a short funding timeline and we at UMass required the services of Dr. Burton Woolf to successfully complete the work.

Information about the study and Dr. Burton Woolf's role

The NSF award is #1936915, "DIRECT: A Framework for Diagnosis, Recommendation, and Training in Continuous Workforce Development." It addresses worker reskilling and retraining and will collect and analyse data from a large partner corporation in the manufacturing industry and will interview real workers and stakeholders.

The research team will need to converge in terms of their expertise in computer science, education technology, and social and economic analyses of the labor market to propose an effective, fair, and scalable software solution that can help a broad segment of workers in the US workforce, in the manufacturing industry and beyond. The research focuses on building a "smart job matcher," a system that uses artificial intelligence (AI) and deep learning to diagnose a worker's skills and detect the skill gap between the job he/she has and the skills required when AI and robots enter the workplace. This research will guide workers through the process of job selection and upskilling in their entire career. We will develop a software framework that performs worker profile diagnosis, training program, recommendation, and intelligent training.

In Phase I we explored a framework to perform worker profile diagnosis, training program recommendations, and intelligent training platform development for the purpose of continuous workforce development. We developed a prototype career path recommendation system to connect workers and unemployed personnel to their next job. This prototype involved analyzing the evolving labor market and identifying key skills required for new, high-demand jobs.

Dr. Burton Woolf will organize a one-day workshop titled "Developing Career Paths and Technical Skills for Manufacturing Workers" to prepare our Phase II NSF proposal and to facilitate communication among various partners, including experts from Stanley, Black and Decker, and Mass Hire, Holyoke in addition to UMass faculty from AI, data science, economics, labor, and psychology).

In Phase II we will focus on leveraging machine learning (especially deep learning) methods to build a robust recommender system that identifies skill gaps between workers and desirable future jobs and recommends alternative career paths and training programs to connect workers to their next job. This includes analyzing the evolving labor market and identifying key skills required for new, high-demand jobs. We will also develop models that can analyze both worker performance and behavior to help diagnose the skill levels, strengths, and weaknesses of each worker in an on-job setting. We will develop a series of training experiences and platforms that enable real-world stakeholders to develop training programs that mimic real-world tasks in future jobs to train workers on the required skills.

These efforts will help us better understand the human-technology partnership and the emerging sociotechnological landscape, create new technologies to augment human performance, and foster lifelong and pervasive learning with technology. This tool for future career path and training program recommendation will benefit employed manufacturing workers as well as unemployed people. Most of the components in our recommendation program apply to any worker, e.g., skill assessment tools help any worker assess their own skill level and labor market trends inform any worker about skills in high demand. Preparing this AI-ready workforce requires an enhanced focus on training, skill assessment, reskilling, and lifelong learning programs to better match Americans' skills with the needs of industry. It expands opportunities for all Americans to gain the skills needed to participate in an AI-ready workforce, including those from diverse backgrounds who are historically underrepresented in industry.

Dr. Burton will focus on the following tasks:

Clarify Phase I accomplishments, including prototype, deliverables, tools; Identification of Phase II activities; refinement of documents for Phase II proposal;

Workshop II will accomplish the following (provide descriptions of):

Career planning activities;
Continuous training activities
Data science tools to be produced;
Project evaluation activities;
Skill assessment tools;
Who will be impacted by Phase II?
How will they be impacted?
How will we establish track success?
Clarify industrial, government and academic partners, Tier 1 and Tier 2;
Further interviews (know the user).

The goal of the workshop is to develop create a draft of the Phase II proposal and a required presentation (pitch) to NSF and a body of commercial experts. An experienced facilitator is essential for the successful completion of the workshop goals to guide an interdisciplinary team towards a unified vision and plan.

Dr. Burton Woolf will focus on the following tasks:

- To prepare for the workshop, Dr. Burton will review the research materials to give guidance to the PI and Co-PIs.
- Prior to the workshop, work with PI and Co-PIs, to develop a process to meet the outlined goals, coordinate logistics for the day, and engage participants in advance.
- During the workshop, lead the team and subcommittee discussions and ensure the goals have been met by the end of the day.
- After the workshop, provide follow-up summary and support.

Dr. Burton Woolf's background and expertise

Dr. Burton Woolf is unique in that he focuses on adult transformative learning within organizations, and how to achieve institutional missions and visions. He has rare and exceptional skills and education. He is a master group process facilitator, adept social networker, and power user of technology applications. He has facilitated many groups at UMass-Amherst, including the successful fall workshop for this project (see attached resume).

The quality of the workshop experience itself will play a critical role in the success of our NSF research and proposal efforts. With a workshop entailing a discussion among high-level professionals, we will need to maintain the continuity of the fall workshop with exceptional attention to detail in both the logistical aspects and process design of the workshop.

The NSF research requires creative problem solving, consensus-building, and participatory decision-making. Thus, it is crucial to provide a professional experience that allows the participants to focus on their task and that all activities be organized and implemented impeccably. We can count on Dr. Burton Woolf to do this.

Hiring and supervision of Dr. Burton Woolf

Considering the short timeframe of the project and the importance of the preparation for the phase two proposal, the decision to hire a facilitator requires urgency. This does not allow for an open search.

Dr. James Allan, Professor & Chair of the Faculty, College of Information and Computer Sciences, has already agreed to supervise Dr. Burton Woolf for pay determination and performance evaluation. Both Dr. Allan and Dr. Laura Haas, Dean of the College, have written letters of support to hire Dr. Burton Woolf.

The proposed NSF fee of \$8,000 for the second workshop will be between 4%-7% of the total consulting revenue for Dr. Burton Woolf for the academic year 2019-2020

Sincerely,

Dr. Beverly P. Woolf Research Professor

College of Information and Computer Sciences

University of Massachusetts Amherst

Office of the Chancellor

March 25, 2020

Beverly Woolf, Research Professor College of Information and Computer Sciences University of Massachusetts Amherst 140 Governors Drive Amherst, MA 01003-9264

Dear Professor Woolf:

I acknowledge receipt of your February 6, 2020 Disclosure of Financial Interest and March 5, 2020 Memorandum. You request permission to re-employ your brother-in-law, Dr. Burton Woolf, to facilitate a follow-up workshop on or about March 27, 2020 on the NSF (award #1936915) supported research on the Future of the Workplace, entitled: "DIRECT: A Framework for Diagnosis, Recommendation, and Training in Continuous Workforce Development". You state that this follow up workshop is entitled: "Developing Career Paths and Technical Skills for Manufacturing Workers" and its goals are to create a draft of the Phase II proposal and a required presentation (pitch) to NSF and a body of commercial experts. You would employ your brother-in-law for this follow-up workshop at a fee of \$8,000.00.

You state that this research is a high priority for the White House and the National Science Foundation, and that this award addresses worker reskilling and retraining, will collect and analyze data from a large partner corporation in the manufacturing industry, and will interview real workers and stakeholders. Additionally, you report this research focuses on building a "smart job matcher", a system that uses artificial intelligence and deep learning to diagnose a worker's skills and detect the skill gap between the worker's job and the skills required when artificial intelligence and robots enter the workplace. You state that this research is intended to guide workers through the process of job selection and upskilling in their entire career, and indicate that you and Dr. Burton Woolf will develop a software framework that performs worker profile diagnosis, training program, recommendation and intelligent training. You further indicate that in this workshop, Dr. Burton Woolf will focus on the following: clarifying Phase I accomplishments, deliverables and tools; identification of Phase II activities to leverage machine learning methods to build a robust recommender system that identifies worker skill gaps, recommends alternative career paths and training programs to connect workers to their next job; developing models that can analyze both worker performance and behavior to help diagnose the skill levels, strengths and weaknesses or each worker in an on-job setting; developing a series of training experiences and platforms that enable real-world stakeholders to develop training programs that mimic real-world tasks in future jobs; and refinement of documents for Phase II. You further state that this follow up workshop will tackle career planning activities, continuous training activities, data science tools to be produced, project evaluation activities, skill assessment tools, clarify partners (industrial, government and academic, Tier 1 and Tier 2), answer questions as to who will be impacted by Phase II (and how they will be impacted), as well as how they will establish/track success, and further interviews.

You indicate that Dr. Burton Woolf has facilitated many groups at UMass-Amherst, including the successful fall workshop for this project, and that the quality of the workshop experience itself plays a critical role in the success of your NSF research and proposal efforts. Accordingly, you state the need to maintain the continuity of the fall workshop with exceptional attention to detail in both the logistical aspects and process design. You request that Dr. Burton Woolf be hired as a facilitator for this follow-up NSF workshop, due to his focus on adult transformative learning within organizations and achieving institutional mission and vision, along with his combination of skills in group process facilitation, social networking, and use of technology applications. You report that this NSF research requires creative problem solving, consensus-building and participatory decision-making, and that it is crucial to provide a professional experience that allows the participants to focus on their tasks and that all activities be organized and implemented impeccably, and that you can count on Dr. Burton Woolf to do this.

Massachusetts General Laws Chapter 268A, Section 6, in part, prohibits a state employee from employing immediate family members and from compensating them for services rendered except when I make a written determination that the matter has been assigned to another employee in which case it shall not be a violation for you to participate in the particular matter.

Based on the information you have provided, I determine that the responsibility for Dr. Burton Woolf's supervision and review have been assigned to Dr. James Allan.

This determination, which will allow you to utilize the services of your brother-in-law through May 30, 2020, must be reviewed and re-evaluated prior to any further appointment. If you wish to retain Dr. Burton Woolf on your project beyond May 30, 2020, please submit your request to the Chancellor of the Amherst campus to make such a review and reevaluation by April 10, 2020.

The statute requires you to advise the Ethics Commission of the nature and circumstances of the particular matter make full disclosure of the financial interest. As directed by statute, I am sending a copy of this written determination letter, along with your memorandum and disclosure form, to the State Ethics Commission for filing.

Sincerely,

- DocuSigned by:

tumble R. Subbaswamy

Kumble R. Subbaswamy

Chancellor

Enclosures

cc: Allison B. Lepper, Associate Counsel John McCarthy, Provost

University of Massachusetts Amherst

College of Information & Computer Sciences

Chair of the Faculty

February 10, 2020

Dean Haas,

Prof. Beverly Woolf has requested permission to hire her brother-in-law, Dr. Burton Woolf, to facilitate a second NSF-sponsored workshop. He ran a workshop in the Fall of 2019. Her request is enclosed and provides substantial detail about Dr. Woolf's expertise and his role in the workshop.

Prof. Woolf's description makes it clear that Dr. Woolf is an excellent person to fill this role. I have had nothing but positive comments regarding Dr. Woolf's work facilitating group activities similar to the NSF-sponsored workshop.

Based on Dr. Woolf's extensive experience and engagement with UMass, and also based on the work he did the first time, I fully support hiring Dr. Woolf for this task. I will act as his supervisor while he is collaborating with us.

Sincerely,

James Allan

Chair of the Faculty

Laura Haas, Dean

Date

University of Massachusetts Amherst

College of Information & Computer Sciences

March 5, 2020

James Allan College of Information and Computer Sciences University of Massachusetts 140 Governors Dr Amherst, MA 01003

Dear Dr. Allan,

I request permission to hire my brother-in-law, Dr. Burton Woolf, to facilitate a second NSF sponsored workshop, Developing Career Paths and Technical Skills for Manufacturing Workers, on March 27th to create a draft of the Phase II proposal and a required presentation (pitch) to NSF. An experienced facilitator is essential for the successful completion of the workshop to guide an interdisciplinary team towards a unified vision and plan. Dr. Woolf will facilitate communication among various partners, including experts from Stanley, Black and Decker, and Mass Hire, Holyoke in addition to UMass faculty from AI, data science, economics, labor, and psychology).

In Phase I we explored a framework to perform worker profile diagnosis, training program recommendations, and intelligent training platform development for the purpose of continuous workforce development. We developed a prototype career path recommendation system to connect workers and unemployed personnel to their next job. This prototype involved analyzing the evolving labor market and identifying key skills required for new, high-demand jobs.

In Phase II we will focus on leveraging machine learning (especially deep learning) methods to build a robust recommender system that identifies skill gaps between workers and desirable future jobs and recommends alternative career paths and training programs to connect workers to their next job. This includes analyzing the evolving labor market and identifying key skills required for new, high-demand jobs. We will also develop models that can analyze both worker performance and behavior to help diagnose the skill levels, strengths, and weaknesses of each worker in an on-job setting. We will develop a series of training experiences and platforms that enable real-world stakeholders to develop training programs that mimic real-world tasks in future jobs to train workers on the required skills.

These efforts will help us better understand the human-technology partnership and the emerging sociotechnological landscape, create new technologies to augment human performance, and foster lifelong and pervasive learning with technology. This tool for future career path and training program recommendation will benefit employed manufacturing workers as well as unemployed people. Most of the components in our recommendation program apply to any worker, e.g., skill assessment tools help any worker assess their own skill level and labor market trends inform any worker about skills in high demand. Preparing this AI-ready workforce requires an enhanced focus on training, skill assessment, reskilling, and lifelong learning programs to better match Americans' skills with the needs of industry. It

expands opportunities for all Americans to gain the skills needed to participate in an AI-ready workforce, including those from diverse backgrounds who are historically underrepresented in industry.

Dr. Burton will focus on the following tasks:

Clarify Phase I accomplishments, including prototype, deliverables, tools; Identification of Phase II activities; refinement of documents for Phase II proposal;

Workshop II will accomplish the following (provide descriptions of):

Career planning activities;
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Project evaluation activities;
Skill assessment tools;
Who will be impacted by Phase II?
How will they be impacted?
How will we establish track success?
Clarify industrial, government and academic partners, Tier 1 and Tier 2;
Further interviews (know the user).

One purpose of the event is to build on the work completed during the November workshop and prepare the required NSF presentation and proposal for Phase II.

Dr. Burton Woolf is unique in facilitating groups. His focus is on adult transformative learning within organizations, and how to achieve institutional mission and vision. He has worked for UMass-Amherst for many years as well as for my research group. He has rare and exceptional skills and education that few people possess. He is a master group process facilitator, adept social networker, and power user of technology applications. Dr. Burton Woolf was offered a role as a consultant in an NSF sponsored research project and will be paid a one-time fee of \$8,000. The "position" was not bid publicly. James Allan will be his supervisor.

Dr. Burton Woolf is currently a consultant to the Amherst campus and provides management support to the Executive Director and his leadership team at Auxiliary Enterprises (Residential/Retail Dining, Bookstore, Hotel, Conference Services, etc.). He presented key findings of the culture-change projects facilitated for the Vice Chancellor of A&F (focus on customer service and strategic planning across 9 divisions), and for the Executive Director of Auxiliary Enterprises (focus on building high performing teams in 12 operating units). For the Vice Chancellor of Information Technologies, he led a teambuilding retreat for IT senior managers (focus on leadership development). For Auxiliary Enterprises Division, he led a strategic visioning process; directed an internal administrative review and quality assessment process; designed and facilitated two leadership development retreats, four departmental think tanks, and a management profiling survey.

He worked with me on a previous NSF supported project, tasked to develop a future research agenda in the realm of learning, technology and education. He convened two multi-day workshops, in which 40 leaders explored a complex set of issues, and came to consensus about a structure for addressing priority concerns in connection with the disparate, yet related disciplines of computer science, educational practice, learning theory, and public policy. Based on his facilitation, we developed a conceptual

framework and initial documentation that proved to be basis for an extremely compelling set of findings and recommendations. The quality of the workshop experience itself played a critical role in the success of our efforts. Dr. Woolf paid close attention not only to the *logistical aspects* of the meetings, but also to the *process design* of the meetings.

Dr. Woolf offers experience across a wide variety of quality-of-life fields including: higher education, community and economic development; arts, culture, and heritage development; tourism development; education & training; conservation/preservation of the natural & built environment; and outdoor recreation. He has a proven record of professional success in all aspects of organizational management; strategy and vision planning; creative problem-solving processes and coordination of large-scale events and projects.

Sincerely,
By oal

Beverly P. Woolf