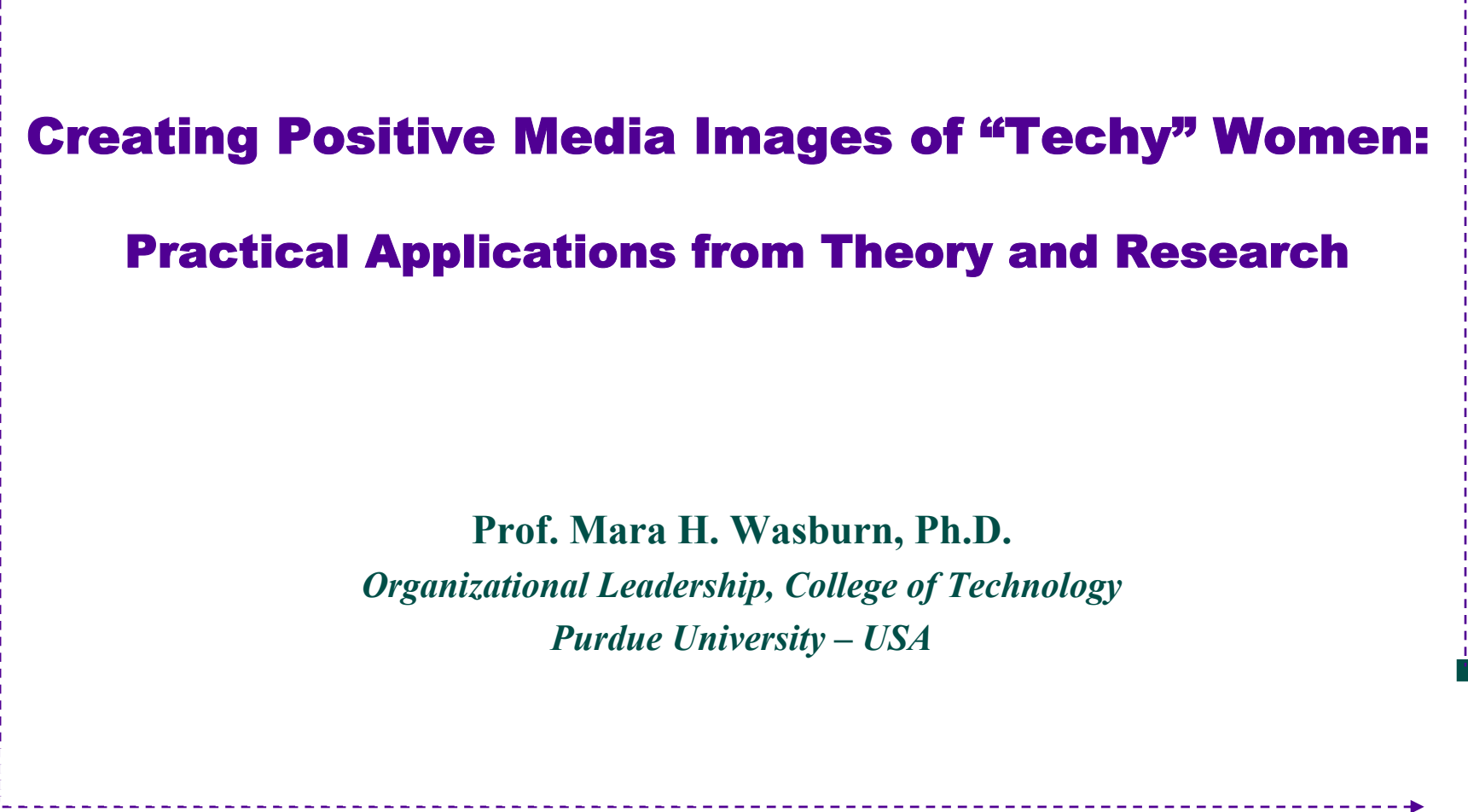# Creating Positive Media Images of "Techy" Women:

Practical Applications from Theory and Research

Prof. Mara H. Wasburn, Ph.D.

Organizational Leadership, College of Technology

Purdue University – USA

The Problem

- Many Western nations face an increasing shortage of qualified professionals in science, technology, engineering, and mathematics (STEM) disciplines.

- The scientific and technical capacity of the United States has already begun to atrophy

- Despite abundant opportunities in these areas, relatively few women are pursuing careers in STEM professions.

Why a media-centered solution?

■ Television has become a major source of information.

   ■ **Americans average 32.5 hours of television viewing per week. ***

   ■ **United Kingdom, 28; Italy, 27; France and Germany, 23 ****

■ Negative images of "techy" men and women on situation comedies and dramas, especially those watched by teens.

■ Science drama CSI most popular television program in the United States in 2004-2005.*

* (2004 Nielsen ratings)

**(Broek, A. (2002). Leisure across Europe. Paper presented to International Assn. For Time Use Research Annual Meetings, Lisbon.)

Why might it work?

- **Theoretical rationale**
  - **Social Construction of Reality**
    - Social actions not responses to "objective realities," but to socially shared meanings learned through socialization and then internalized.

  - **Cultivation Theory**
    - Commonly encountered representations (images) of the social world come to be understood as social reality itself.

3

The Pilot Study

- The subjects: Contacted via CATI System, computer assisted telephone-interviewing system. Selects telephone numbers randomly from all area codes and telephone prefixes throughout continental United States

- The Sample: Drawn randomly. 284 of 400 hundred interviews completed for response rate of 71 percent.

- Limitations : Sample too small to be representative of entire population of continental United States. Women over represented: 210 (70.7%) to 83 (29.2%) male respondents. Telephone questions necessarily brief, hence only proxy measures of central concepts.

The Findings

- May be vast differences in frequency with which audiences encountered women in various STEM disciplines.

- May be vast differences in public perceptions of relative attractiveness of various technology-rich occupations.

- Men more likely than women to agree that research scientist, engineer, and computer technician acceptable careers for women.

The Findings (cont.)

- Exposure to positive images of "techy" women may increase likelihood that viewers will believe these are acceptable careers for women in the case of some STEM careers (e.g., computer technician) more than others (e.g., research scientist and engineer.)

- Significantly fewer women than men believe computer technician acceptable career for women. Favorable attitude changes in response to positive media images of women in computer-focused careers should be focus.

6

Practical Applications

- Goal: Construct the socially shared perspective that it is just as natural for a woman to be a STEM professional as it is for her to be a medical doctor or a lawyer.

- Positive, though not always glamorous, images need to be presented, not just in dramas, but also in comedies, soap operas, commercials, talk shows.

- Greatest effort needs to be focused on women in computer-focused careers.   Those efforts most likely to be successful.

What's Next?

- Additional research needed to determine if findings of pilot study, which suggest that majority of both men and women find computer-focused STEM careers least appropriate for women, is valid.

- Similar international data needed to determine if findings would apply in other countries as well.

- If findings hold, media strategy targeting women and girls likely to be interested in computer-focused careers would be most effective.

- Perhaps other explanations and strategies should be explored to raise numbers in science and engineering.