

Multidisciplinary Development Teams: The Case of Website Development Workshop

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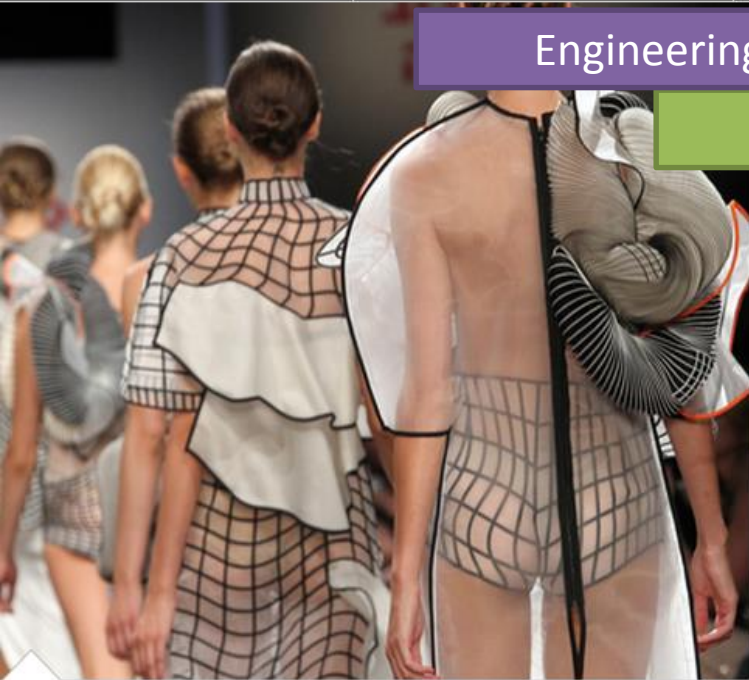
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The Latest Shenkar's ACT (Accelerating Creative Talents) Successful Project



הצלחה ישראלית ב-CBC2014

15 / 40

Agenda

- Background
- Empirical study
- Findings
- Conclusions
- Future work



Innovation & Creativity

Social

Design

Economics

Culture

Financial

Management



Why Multidisciplinary Teams?

May transform organizations from the Information Age economy to the Conceptual Age economy. (Pink, 2005)

Multifunctional teams are viewed as a strategic tool aimed at fostering innovation and gaining competitive advantage. (Bridle, Vrieling and Cardillo, 2013)

Software design requires development of innovative solutions for unfamiliar problems, especially for companies operating in the global economy. (Aean, 2008 ;Petre, 2009)

Advanced SD methodologies don't handle people innovation which requires changing "mental models" and developing new perspectives . (Aean, 2008)

“Creativity theory goes beyond traditional IT development theory in high-lighting the importance of creativity skills, noting that development creativity can be altered by having more creative people in the development group and by employing individual creativity techniques. Therefore, only creativity theory would support the following explanation. The conservative organizational culture led to a lack of individual creativity, which reduced group members' abilities to take new perspectives and explore new cognitive pathways. Their natural inclination, then, was to develop image based on old ways of doing things.”

(Cooper, 2000, MISQ,24,2)

The On-going Research

Objective:

Facilitating people innovation by creating multidisciplinary development teams of engineers and designers.



Empirical study:

Explored the students' perceptions, expectations and interactions that occurred during a design-engineering workshop.



Empirical study

- Four day design & engineering workshop
 - ✓ part of Shenkar's "Jam week"
- Multidisciplinary teams
 - ✓ 14 engineering & design students
- Teams develop a Web site according to their interests
 - ✓ Website development on the WIX¹ platform
- Lectures on Web 2.0, WIX, design culture, and gamification
- Research Data:
 - ✓ Questionnaires before and after the workshop
 - ✓ Observations during the workshop
 - ✓ Interview with the winner team who won the ACT competition

¹ <http://www.wix.com/>

Findings - 1

- **Students eager to meet colleagues from other disciplines**
 - ✓ get more perspectives & learning experience
- **Favorable words used, before the workshop:**
 - “innovation”, “thinking out of the box”,
“inspiring”, “expectations”, “curiosity”
- **Terminology at the beginning:**
 - ✓ engineering: functionality & management issues
 - ✓ design: design or the site’s general theme

Findings - 2

Terminology changed during the workshop

Engineer:

“we need a digital image that expresses the hard work of the artist, therefore we need a close-up picture”

Findings - 3

Terminology changed during the workshop:

Designer:

“we need to present a work process”

“we need to add a button to stop the music”

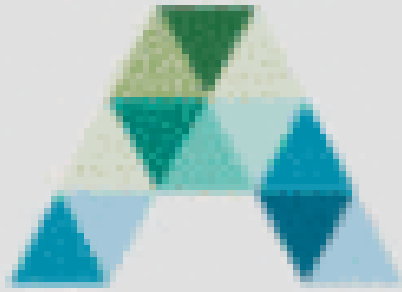
Findings - 4

Favorable words, @ end of the workshop:

“collaboration”

”team work”

“mutual work”



Findings - 5

ACT SHENKAR

Accelerating Creative Talents

One project was chosen to participate in Shenkar's ACT accelerator program:

- Receiving:
 - ✓ business and technological guidance
 - ✓ initial funding
 - ✓ a business mentor

- Getting familiar with:
 - ✓ building a business plan
 - ✓ protecting IP
 - ✓ creating presentations for funds raising
 - ✓ team building

Interview with students of the winning team:

“I was fascinated by the business world”

“I was involved in additional projects of the designer”

“Each one of us brought different professional suggestions, therefore we didn't have to argue, each one had a specific role”

“We were free of stereotypes about each other, therefore we were able to work together and eventually become friends.”

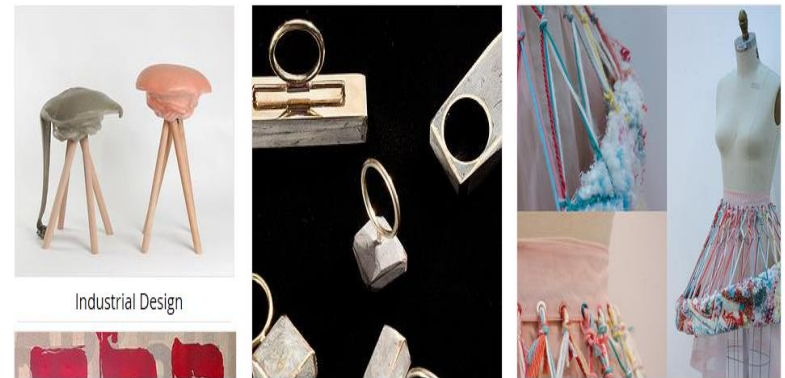
“Collaboration is crucially important”

“A firm that employs people from diverse professions will have an advantage”

Industrial Design

Conclusions

- Students were enthused to participate in multidisciplinary teams
- Mutual learning of terminology
- Joint decision making
- The workshop fostered creativity



Industrial Design

Vision for Future Work

- Research will study the evolution of the innovative project that came out of the workshop
- Engineers vs. designers in other contexts:
 - ✓ understanding each group's goals, perspectives, design tools, soft skills
 - ✓ creation of mutually beneficial modeling tool
 - ✓ collaboration within multidisciplinary teams
- Arranging joint conferences for bringing together scholars from both disciplines
 - ✓ the first on knowledge and information visualization will take place at Shenkar on 13/14-5-15, you are invited!

Thank you!!

Comments, Questions or Suggestions?

