

Product Innovation

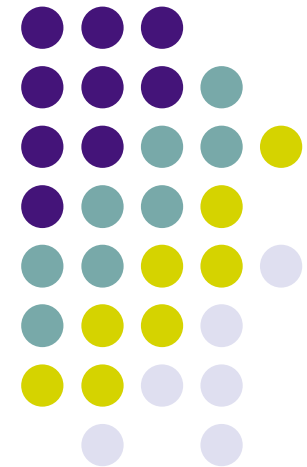
within: Requirements Engineering II

by

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Agenda

- What is creativity?
- Why creativity in RE?
- Which types of creativity do exist?
- How can innovative ideas be identified?
- How can their realization be enabled?



What is creativity?

- *Creativity is defined as “the ability to produce work that is both **novel** (i.e. original, unexpected) and **appropriate** (i.e. useful, adaptive concerning task constraints)”*

Maiden & Robinson (2005)



Why creativity in RE?

- Situation is fixed
 - Stakeholders often know the domain, the problems and common solutions
 - Processes are often inflexible and leveled
- “*Thinking out of the box*” can lead to new solutions and processes
- Innovation most often starts with creativity

Which types of creativity do exist?



- Exploratory
 - Brainstorming
 - Analogical reasoning
- Combinatorial
 - Direct idea combination
 - Storyboarding
- Transformational
 - Constraint removal
 - Presentation of solution space knowledge

How can innovative ideas be identified?



- Divergence – Convergence
 - Preparation
 - Incubation
 - Illumination
 - Verification

How can innovative ideas be identified?



- Creativity workshops
 - First explorative
 - Second combinatorial
 - Third transformational
- Idea database
- Dedicated research department
- Informal communication

How can their realization be enabled?



- Estimation of ideas
- Recording of ideas
- Traceability of ideas
- Gratuity for ideas

How can their realization be enabled?



- Definition of an “innovation” process
 - Star Search:
 - Call for Innovation
 - Audition
 - Case Preparation and Screening
 - Case Decision
 - Workshop series
 - Defined input and output of each session

Questions?



... thanks for your attention!





References

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