

# SENG 471

## Software Requirements Engineering

### Scoping the Problem

## Scoping Your Analysis

- Scoping the problem
  - How to stop looking for bigger problems to solve?
- Scoping the solution
  - How to stop from computerizing everything?
- Case study:
  - Sale Books
  - A Hotel Checkout System

## Decision I – The scope of the problem

- Bookstore example: **“Textbooks are often not ordered in time for the start of classes.”**
  1. Is that a symptom? (You ask the manager)
  2. Is that a symptom of other problem? (ask the instructors)
  3. Is that a symptom of other problem? (ask the UG office)
  4. Is that a symptom of other problem? (ask the dept head)
  5. Is that a symptom of other problem? (ask the dept head)
  6. Is that a symptom of other problem? (ask the new recruits )
  7. Is that a symptom of other problem? (ask U of C, etc, )
- Is that a symptom ... .. oh wait ... .. maybe we can develop a decision support system for faculty hiring at U of C, and that will help us get our textbooks for the start of class...

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## Decision II – The scope of the solution

- Bookstore example: **“Let’s computerize the submission of textbook forms from instructors”**
  1. computerize the submission of orders to the publishers
  2. computerize the management of book inventories to quickly check stock levels before ordering new books
  3. computerize the archives of past years booklists to predict demand
  4. computerize used book exchange
  5. ...and then of course there's ...
- Bookstore manager: **“Tell me again how this automated used book exchange will help me order books faster?”**

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## Analysis

- What are the problems?
- What are the alternatives?
- What are the selection criteria?
- What recommendation would you make?

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## Example: Sale Books

- Current system:
  - receive orders from customers for books
  - order the books from publishers, at a discount
  - fill an order on receiving books from publishers
- Planned system:
  - hold stocks of most frequently ordered titles
  - allow order by internet, by phone and by mail
- What need to consider?

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## Exercise: A Hotel Checkout System

- Current system:
  - update customer's accounts twice/day with charges
  - pay the bill in full (with any recent charges), when the customer leaves
- Hotel management want to change it because:
  - have often billing errors
  - expect business to grow
  - want on-line updates of customer accounts
- What need to consider?

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## Recap

- Scoping the problem
  - Scoping the problem
  - Scoping the solution
  - Case studies

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