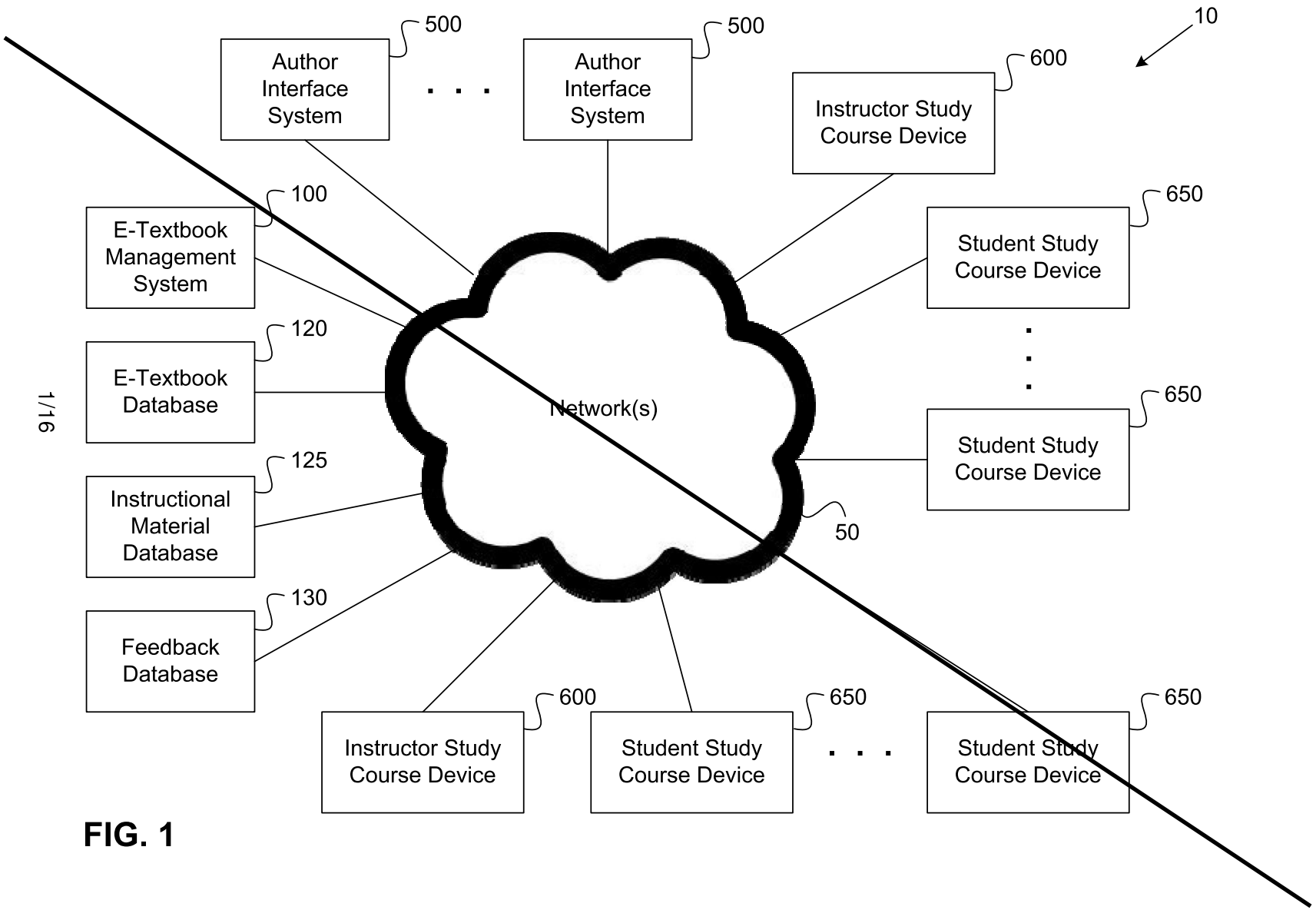

10
Author Interface System
500
Author Interface System
500
Instructor Study Course Device
600
E-Textbook Management System
100
E-Textbook Database
120
Instructional Material Database
125
Feedback Database
130
Network(s)
50
Student Study Course Device
650
Student Study Course Device
650
Instructor Study Course Device
600
Student Study Course Device
650
Student Study Course Device
650

FIG. 1

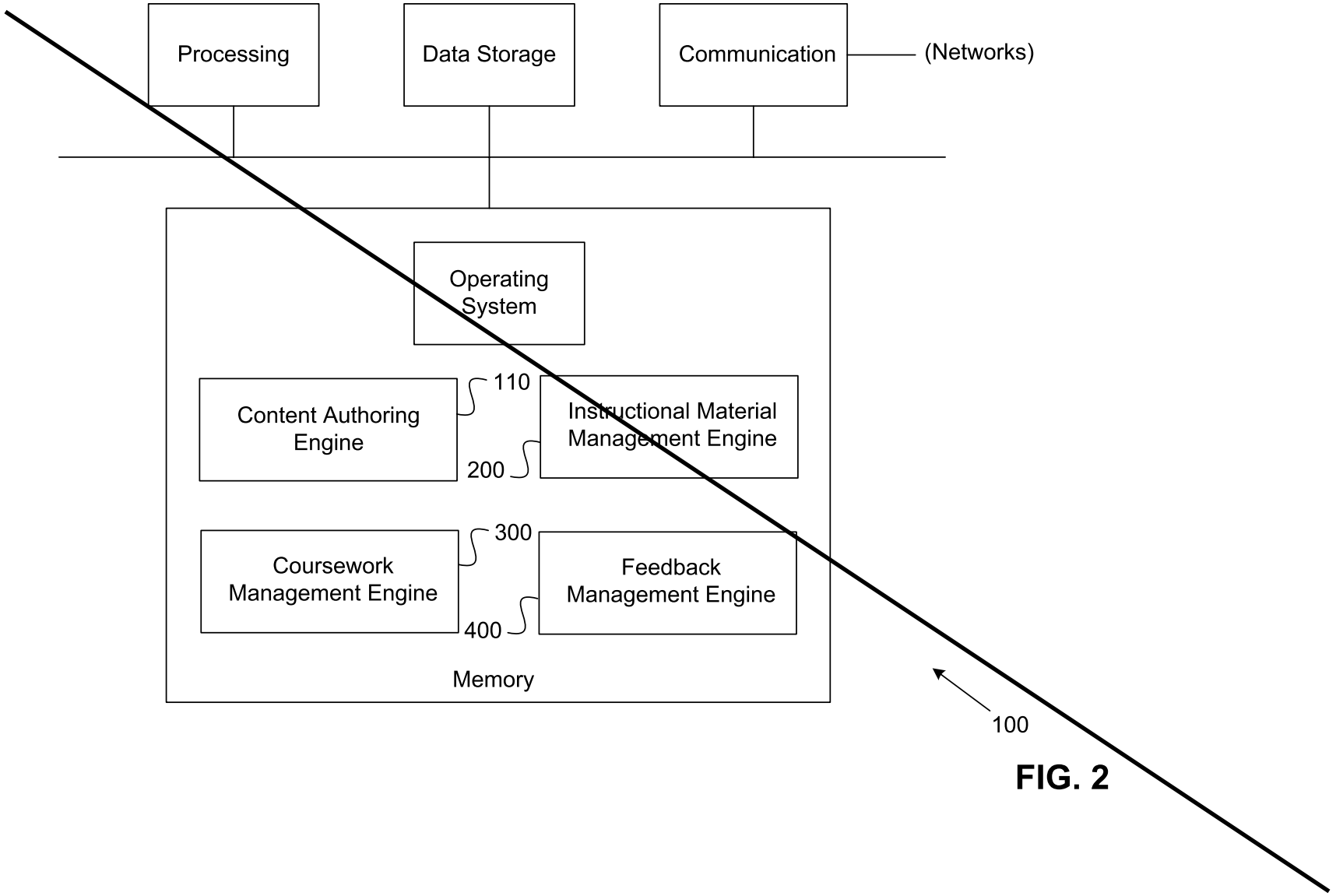
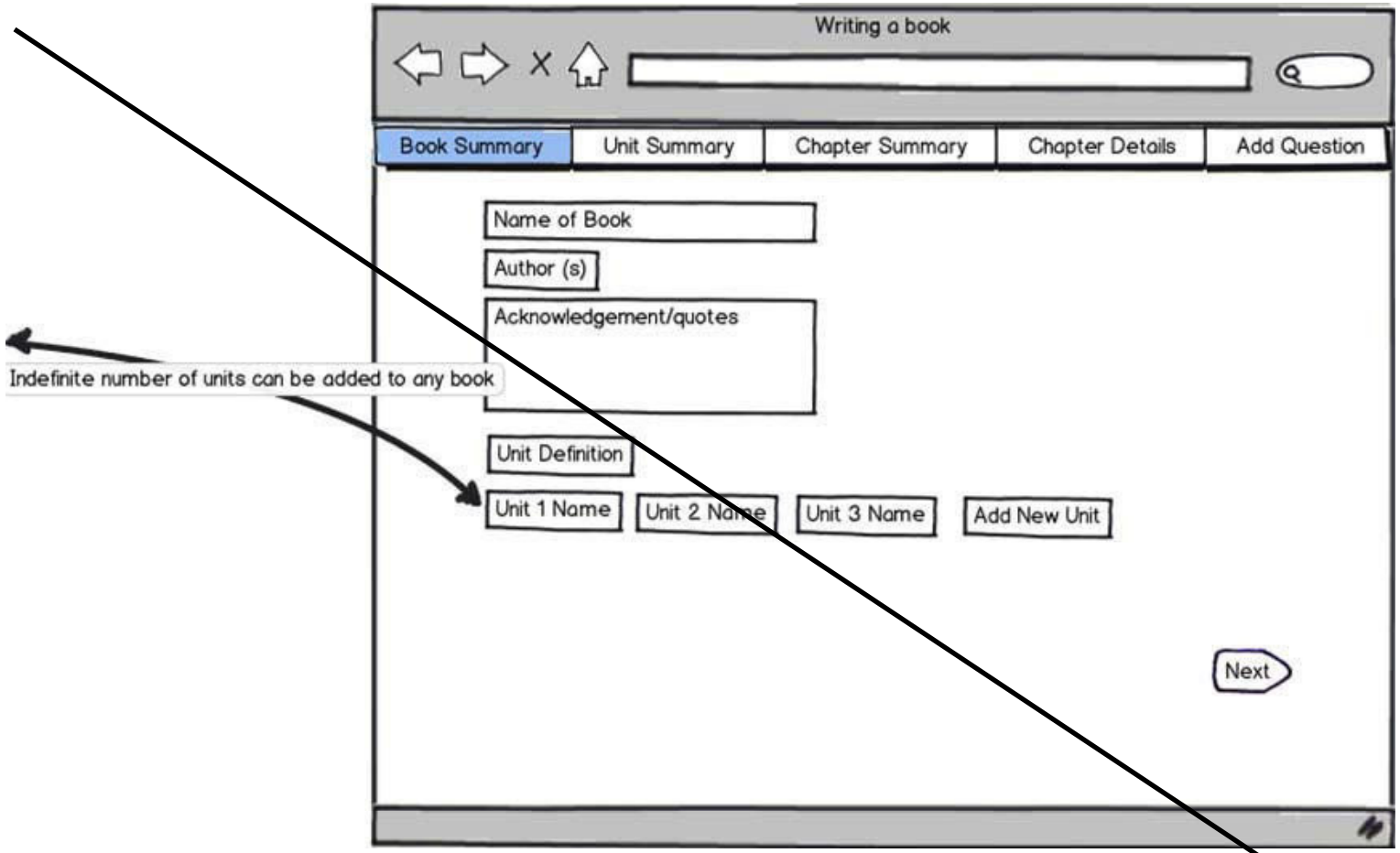

Processing
Data Storage
Communication
(Networks)
Operating System
Content Authoring Engine
110
Instructional Material Management Engine
200
Coursework Management Engine
300
Feedback Management Engine
400
Memory
100

FIG. 2


Writing a book
Book Summary
Unit Summary
Chapter Summary
Chapter Details
Add Question
Name of Book
Author (s)
Acknowledgement/quotes
Indefinite number of units can be added to any book
Unit Definition
Unit 1 Name
Unit 2 Name
Unit 3 Name
Add New Unit
Next

580a

FIG. 3A

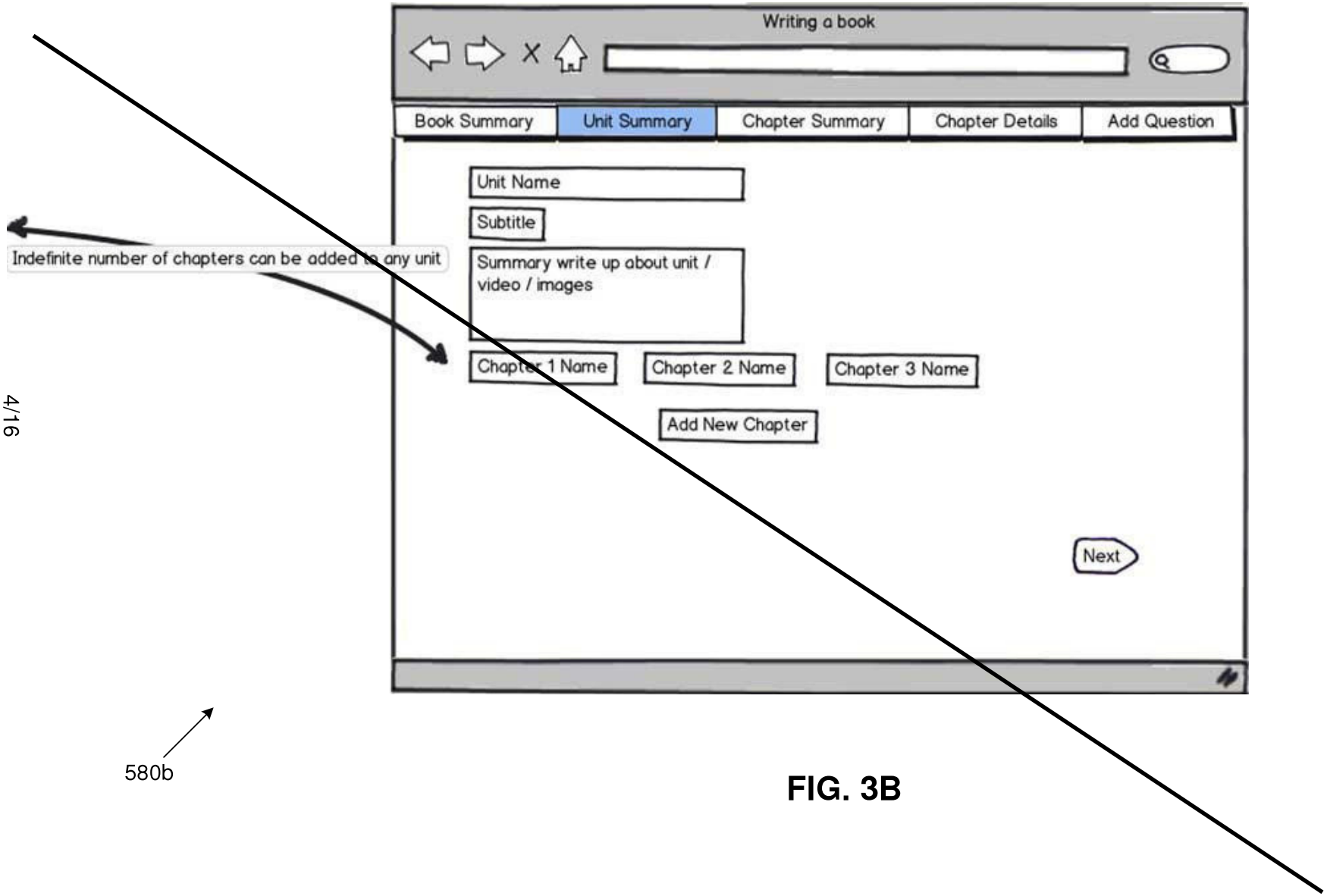
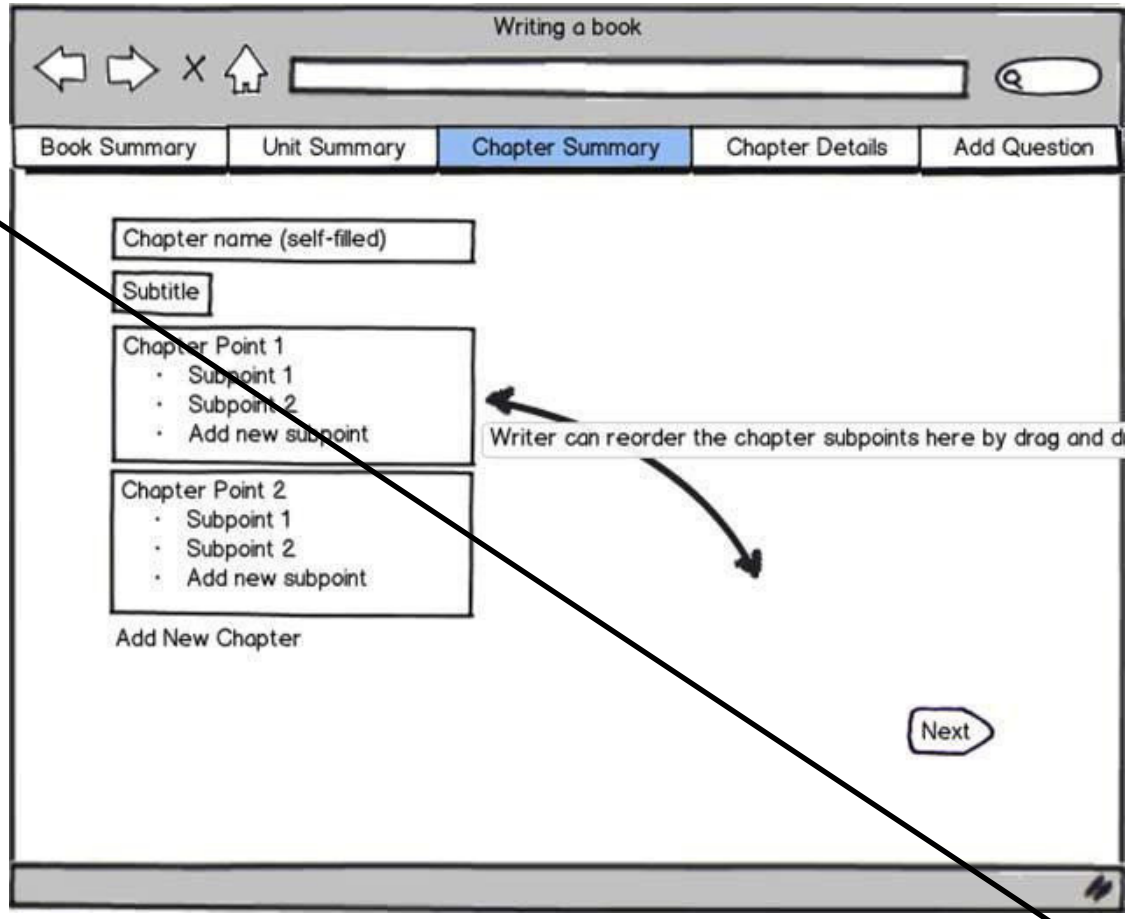

Writing a book
Book Summary
Unit Summary
Chapter Summary
Chapter Details
Add Question
Unit Name
Subtitle
Summary write up about unit / video / images
Indefinite number of chapters can be added to any unit
Chapter 1 Name
Chapter 2 Name
Chapter 3 Name
Add New Chapter
Next
580b

FIG. 3B


Writing a book
Book Summary
Unit Summary
Chapter Summary
Chapter Details
Add Question
Chapter name (self-filled)
Subtitle
Chapter Point 1
Subpoint 1
Subpoint 2
Add new subpoint
Writer can reorder the chapter subpoints here by drag and d
Chapter Point 2
Subpoint 1
Subpoint 2
Add new subpoint
Add New Chapter
Next

580c

FIG. 3C

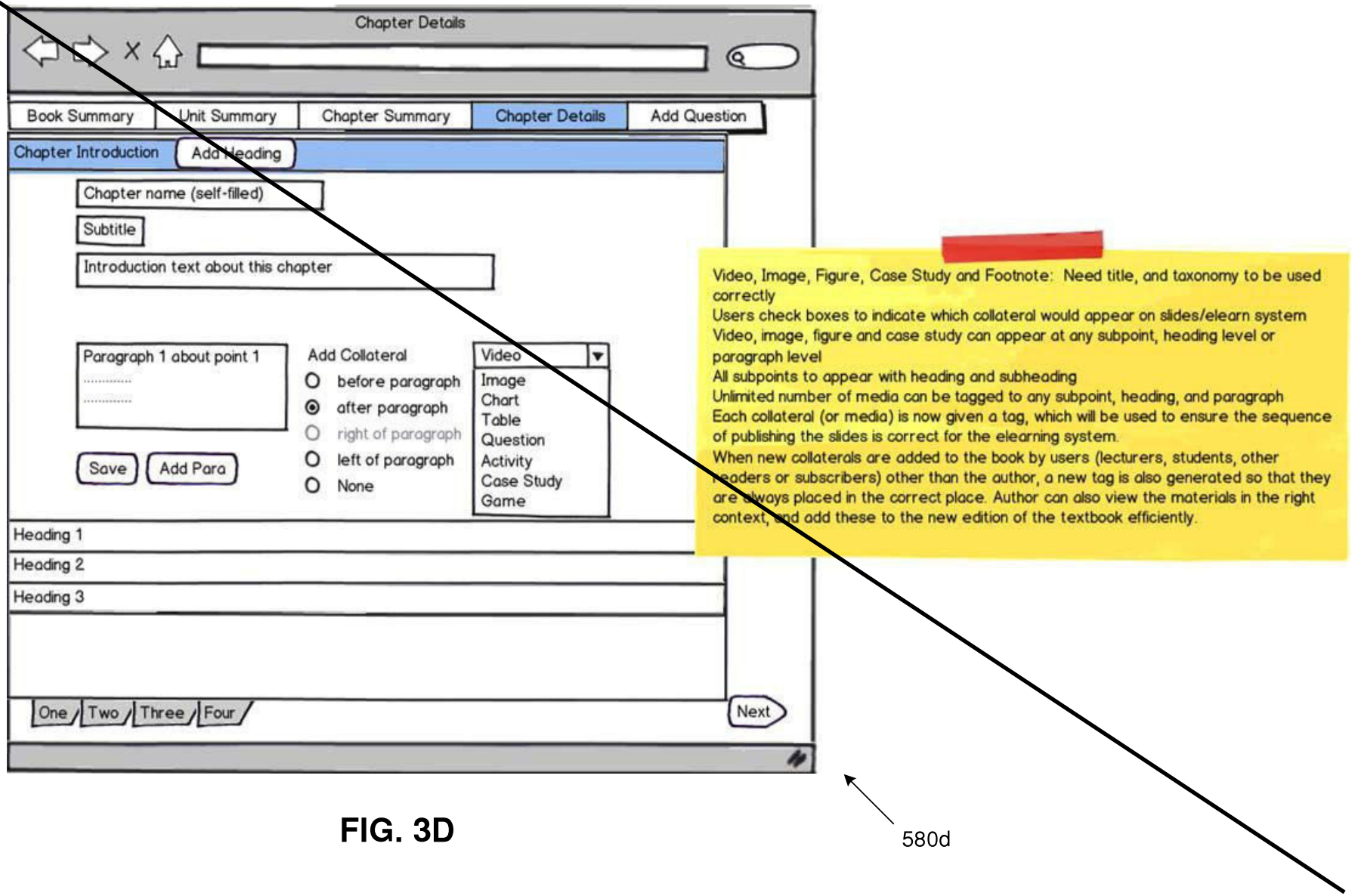

Chapter Details
Book Summary
Unit Summary
Chapter Summary
Chapter Details
Add Question
Chapter Introduction
Add Heading
Chapter name (self-filled)
Subtitle
Introduction text about this chapter
Paragraph 1 about point 1
Add Collateral
before paragraph
after paragraph
right of paragraph
left of paragraph
None
Video
Image
Chart
Table
Question
Activity
Case Study
Game
Save
Add Para
Heading 1
Heading 2
Heading 3
One
Two
Three
Four
Next
Video, Image, Figure, Case Study and Footnote: Need title, and taxonomy to be used correctly
Users check boxes to indicate which collateral would appear on slides/elearn system
Video, image, figure and case study can appear at any subpoint, heading level or paragraph level
All subpoints to appear with heading and subheading
Unlimited number of media can be tagged to any subpoint, heading, and paragraph
Each collateral (or media) is now given a tag, which will be used to ensure the sequence of publishing the slides is correct for the elearning system.
When new collaterals are added to the book by users (lecturers, students, other readers or subscribers) other than the author, a new tag is also generated so that they are always placed in the correct place. Author can also view the materials in the right context, and add these to the new edition of the textbook efficiently.
580d

FIG. 3D

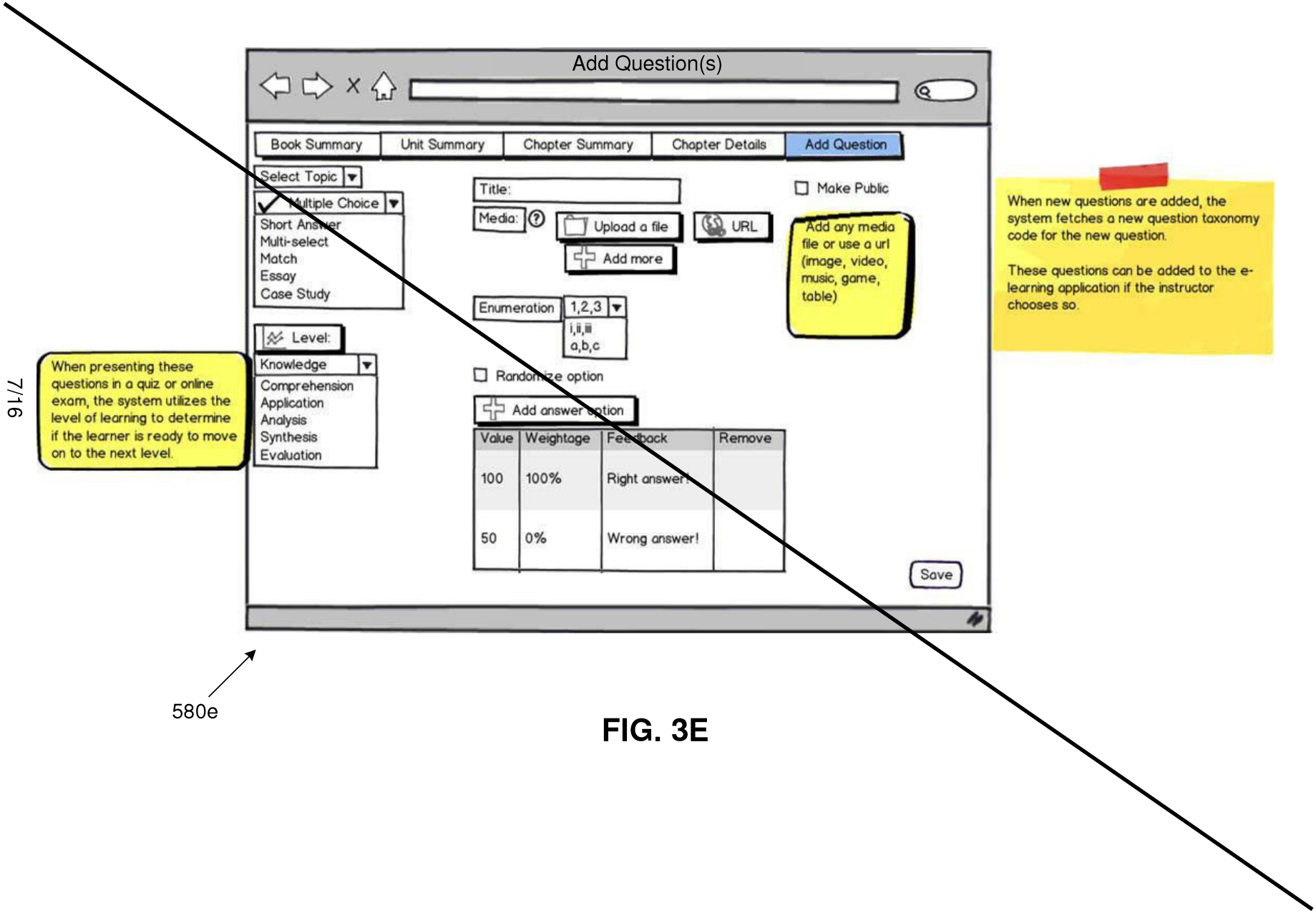

Add Question(s)
Book Summary
Unit Summary
Chapter Summary
Chapter Details
Add Question
Select Topic
Multiple Choice
Short Answer
Multi-select
Match
Essay
Case Study
Title:
Make Public
Media:
Upload a file
URL
Add more
Add any media file or use a url (image, video, music, game, table)
Enumeration
1,2,3
i,ii,iii
a,b,c
Level:
Knowledge
Comprehension
Application
Analysis
Synthesis
Evaluation
Randomize option
Add answer option
Value
Weightage
Feedback
Remove
100
100%
Right answer!
50
0%
Wrong answer!
Save
When presenting these questions in a quiz or online exam, the system utilizes the level of learning to determine if the learner is ready to move on to the next level.
When new questions are added, the system fetches a new question taxonomy code for the new question.
These questions can be added to the e-learning application if the instructor chooses so.
580e

FIG. 3E

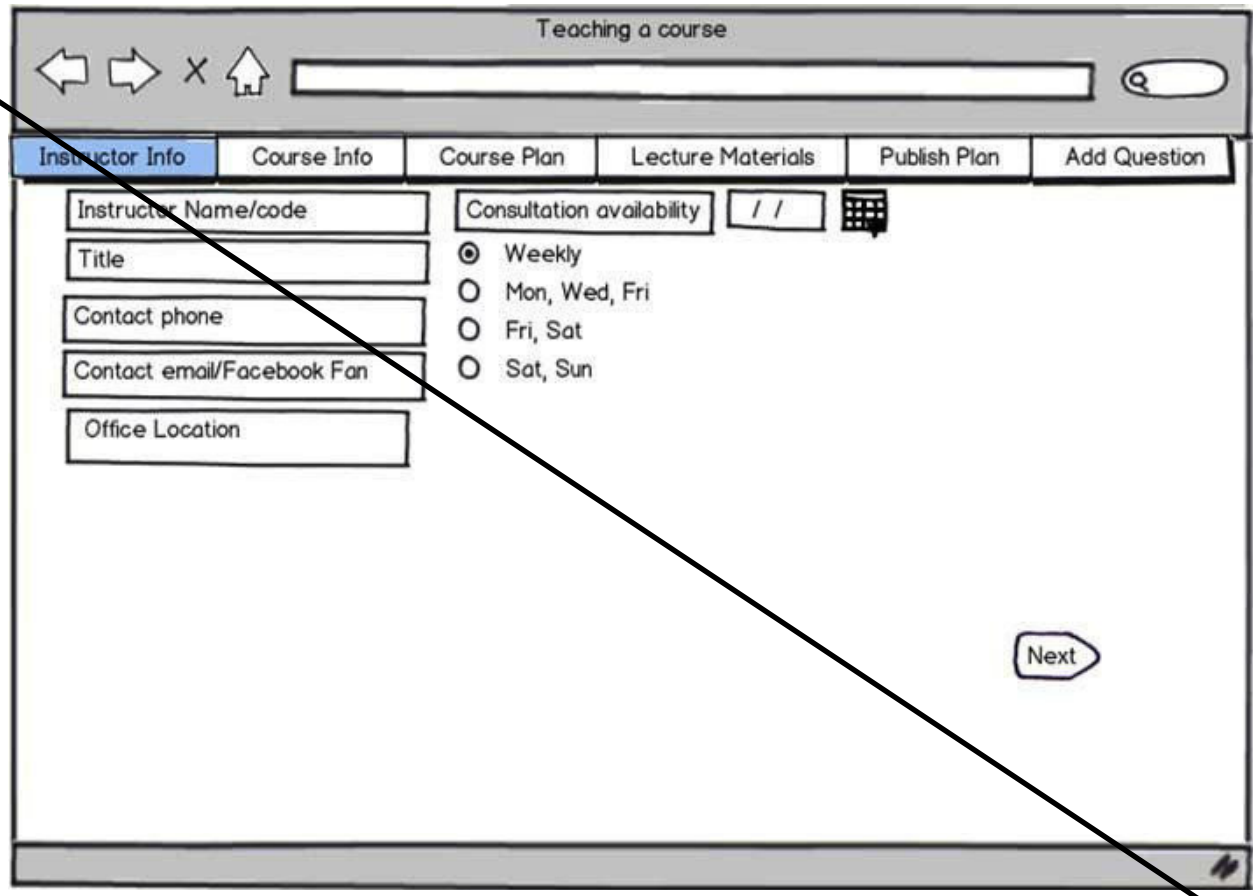
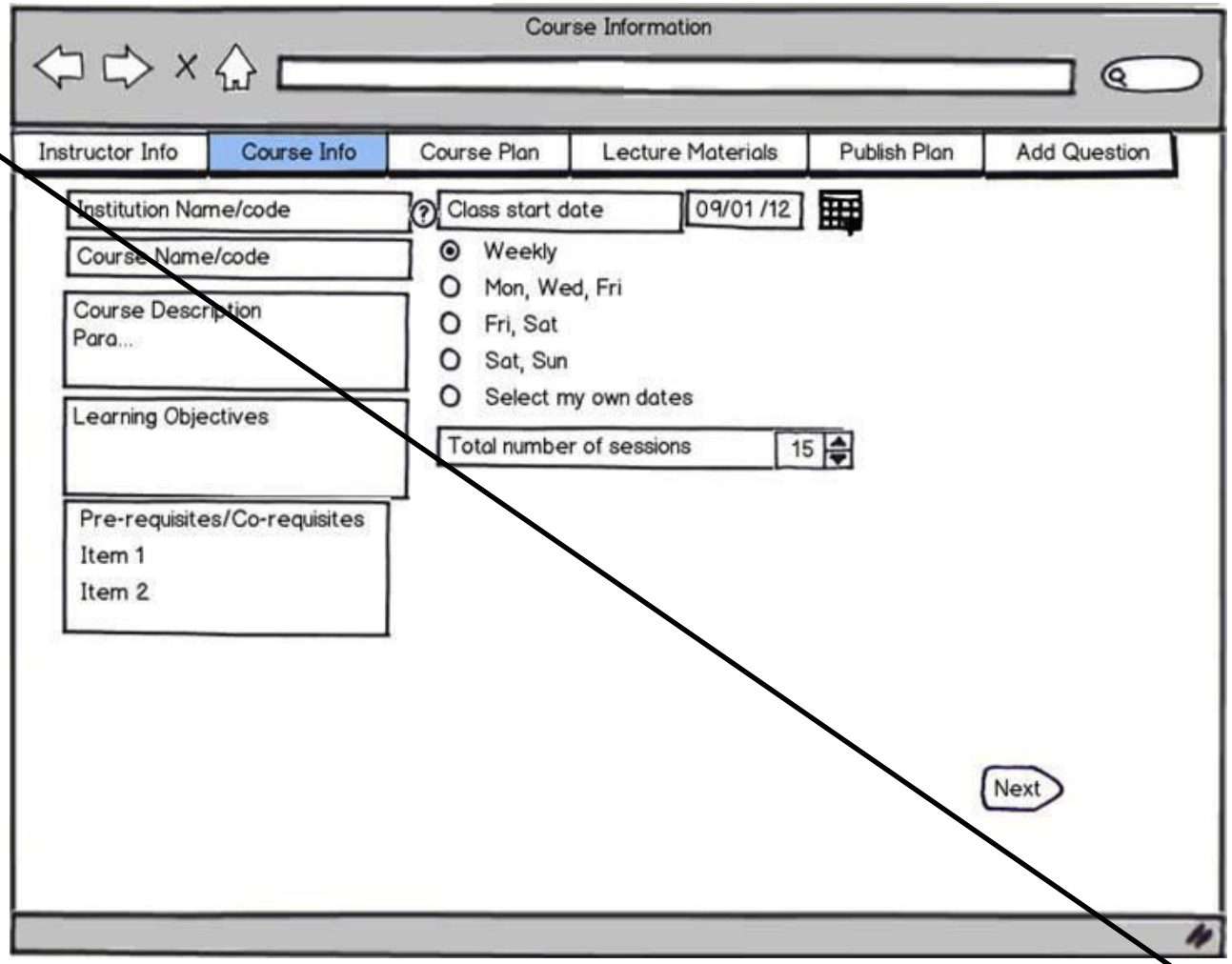
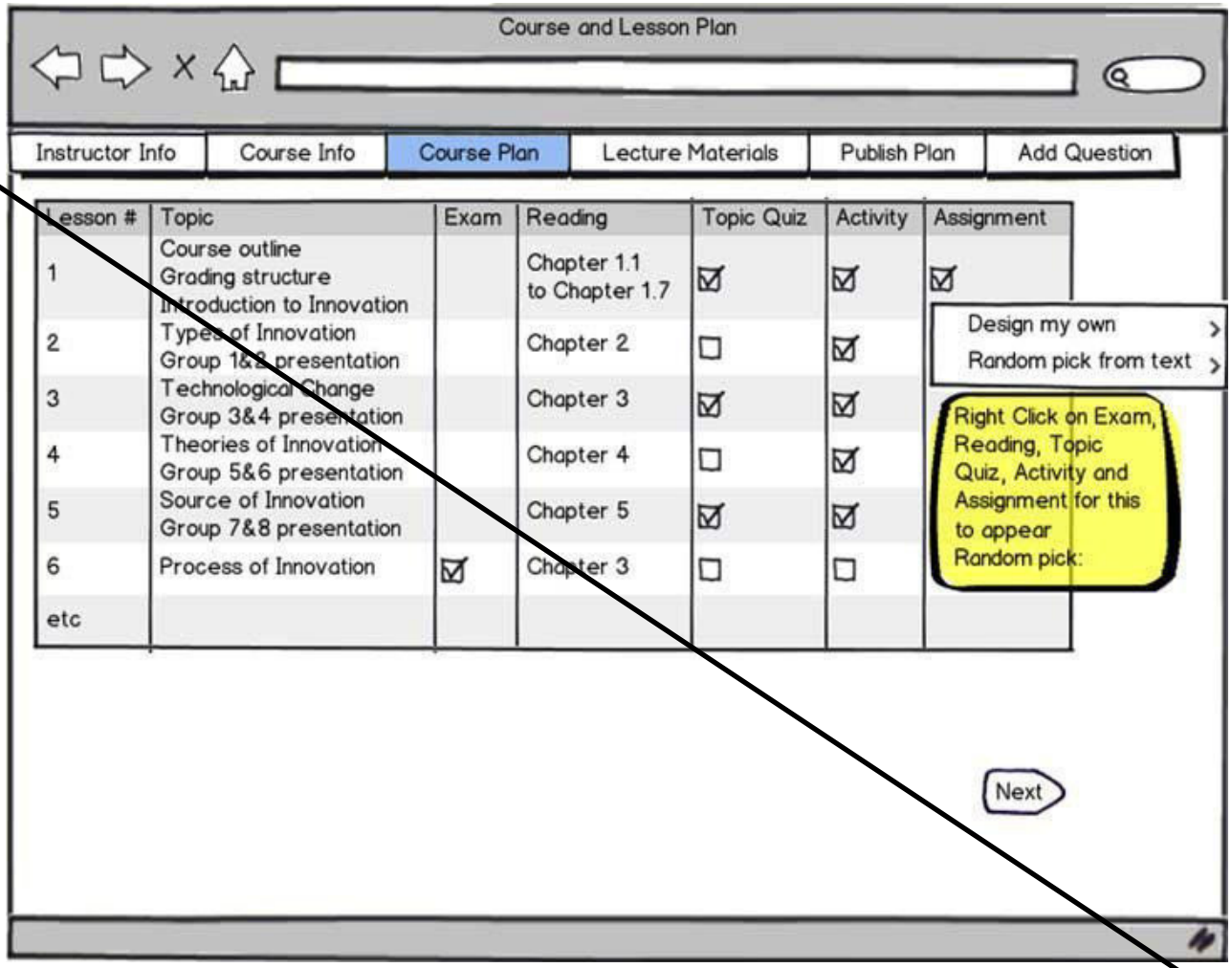

Teaching a course
Instructor Info
Course Info
Course Plan
Lecture Materials
Publish Plan
Add Question
Instructor Name/code
Title
Contact phone
Contact email/Facebook Fan
Office Location
Consultation availability
/ /
Weekly
Mon, Wed, Fri
Fri, Sat
Sat, Sun
Next
380a

FIG. 4A


Course Information
Instructor Info
Course Info
Course Plan
Lecture Materials
Publish Plan
Add Question
Institution Name/code
Course Name/code
Course Description Para...
Learning Objectives
Pre-requisites/Co-requisites
Item 1
Item 2
Class start date
09/01/12
Weekly
Mon, Wed, Fri
Fri, Sat
Sat, Sun
Select my own dates
Total number of sessions
15
Next

380b

FIG. 4B


Course and Lesson Plan
Instructor Info
Course Info
Course Plan
Lecture Materials
Publish Plan
Add Question
Lesson #
Topic
Exam
Reading
Topic Quiz
Activity
Assignment
1
Course outline
Grading structure
Introduction to Innovation
Chapter 1.1
to Chapter 1.7
2
Types of Innovation
Group 1&2 presentation
Chapter 2
3
Technological Change
Group 3&4 presentation
Chapter 3
4
Theories of Innovation
Group 5&6 presentation
Chapter 4
5
Source of Innovation
Group 7&8 presentation
Chapter 5
6
Process of Innovation
Chapter 3
etc
Design my own
Random pick from text
Right Click on Exam, Reading, Topic Quiz, Activity and Assignment for this to appear Random pick:
Next

380c

FIG. 4C

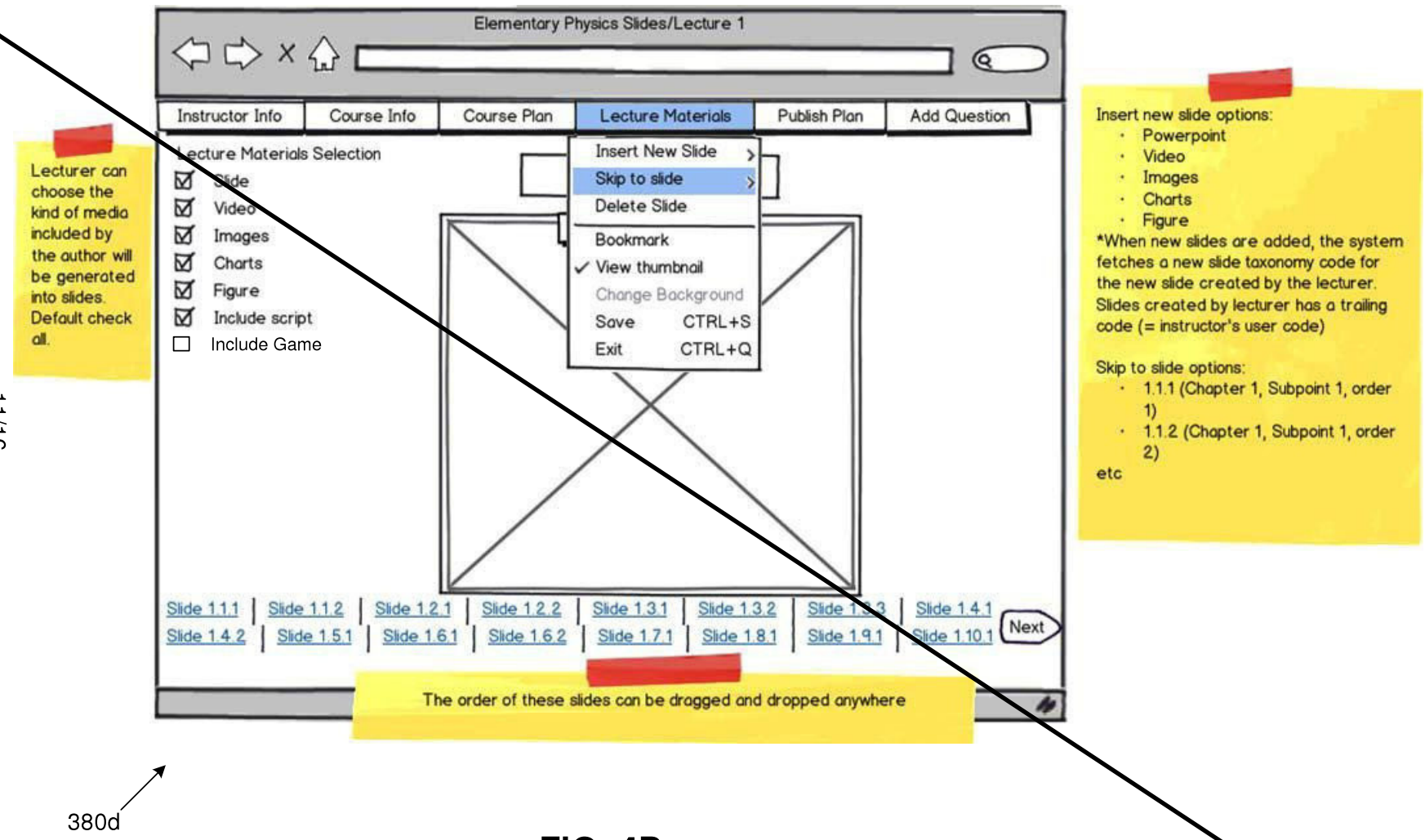

Elementary Physics Slides/Lecture 1
Instructor Info
Course Info
Course Plan
Lecture Materials
Publish Plan
Add Question
Lecture Materials Selection
Slide
Video
Images
Charts
Figure
Include script
Include Game
Insert New Slide
Skip to slide
Delete Slide
Bookmark
View thumbnail
Change Background
Save CTRL+S
Exit CTRL+Q
Slide 1.1.1
Slide 1.1.2
Slide 1.2.1
Slide 1.2.2
Slide 1.3.1
Slide 1.3.2
Slide 1.4.1
Slide 1.4.2
Slide 1.5.1
Slide 1.6.1
Slide 1.6.2
Slide 1.7.1
Slide 1.8.1
Slide 1.9.1
Slide 1.10.1
Next
Lecturer can choose the kind of media included by the author will be generated into slides. Default check all.
Insert new slide options:
Powerpoint
Video
Images
Charts
Figure
*When new slides are added, the system fetches a new slide taxonomy code for the new slide created by the lecturer. Slides created by lecturer has a trailing code (= instructor's user code)
Skip to slide options:
1.1.1 (Chapter 1, Subpoint 1, order 1)
1.1.2 (Chapter 1, Subpoint 1, order 2)
etc
The order of these slides can be dragged and dropped anywhere
380d

FIG. 4D

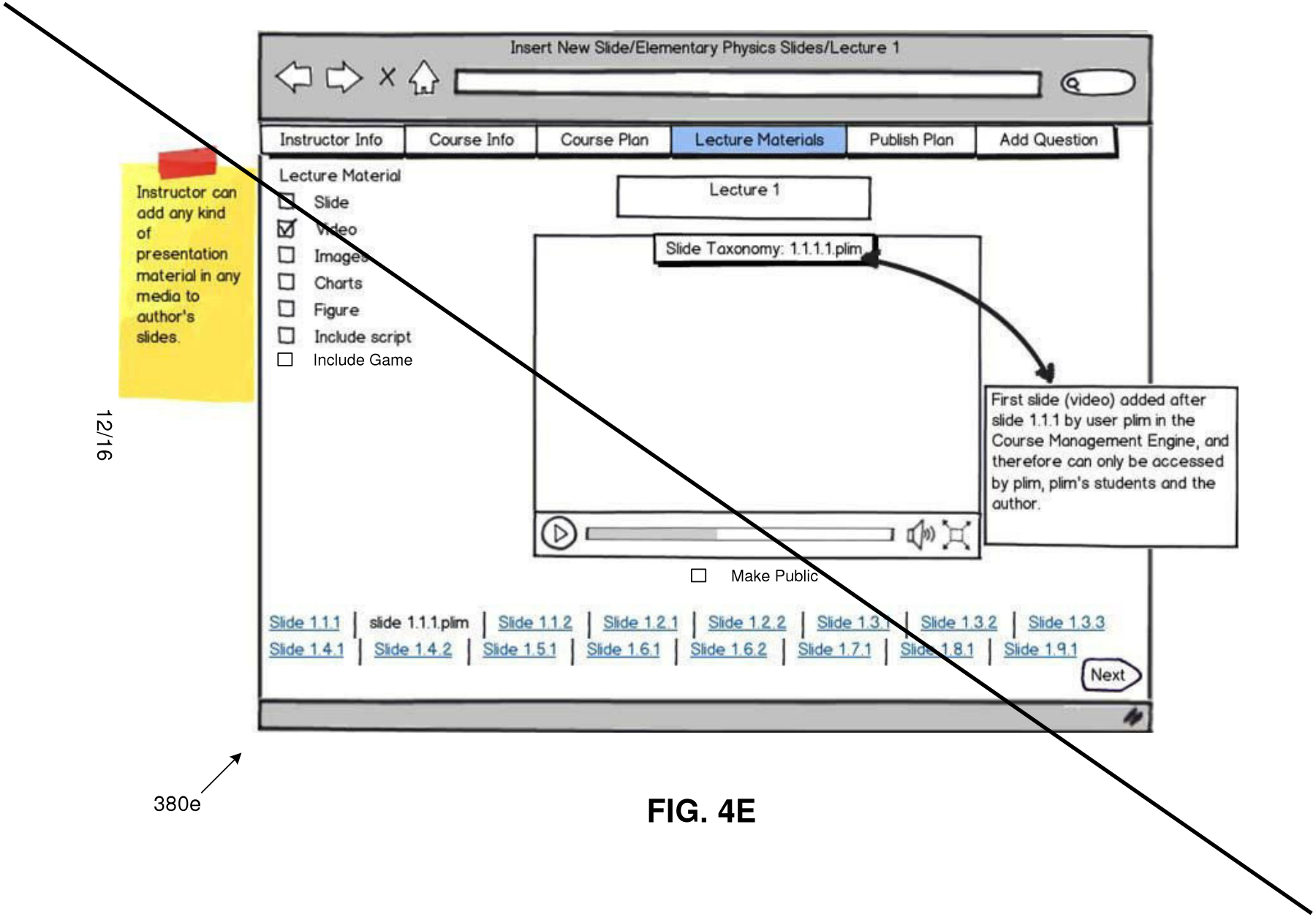
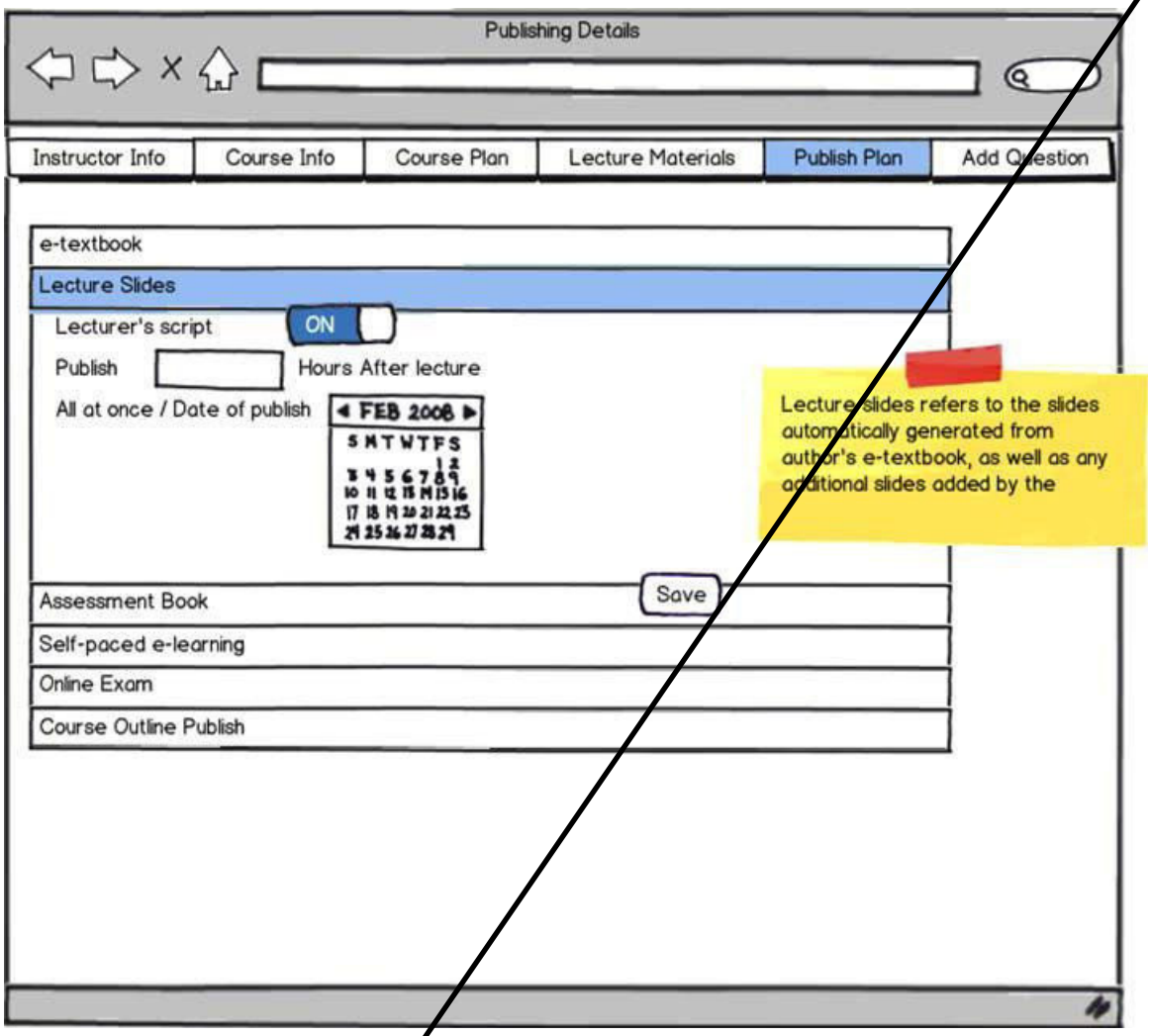

Insert New Slide/Elementary Physics Slides/Lecture 1
Instructor Info
Course Info
Course Plan
Lecture Materials
Publish Plan
Add Question
Instructor can add any kind of presentation material in any media to author's slides.
Lecture Material
Slide
Video
Images
Charts
Figure
Include script
Include Game
Lecture 1
Slide Taxonomy: 1.1.1.1.plim
First slide (video) added after slide 1.1.1 by user plim in the Course Management Engine, and therefore can only be accessed by plim, plim's students and the author.
Make Public
Slide 1.1.1 | slide 1.1.1.plim | Slide 1.1.2 | Slide 1.2.1 | Slide 1.2.2 | Slide 1.3.1 | Slide 1.3.2 | Slide 1.3.3
Slide 1.4.1 | Slide 1.4.2 | Slide 1.5.1 | Slide 1.6.1 | Slide 1.6.2 | Slide 1.7.1 | Slide 1.8.1 | Slide 1.9.1
Next
380e

FIG. 4E


Publishing Details
Instructor Info
Course Info
Course Plan
Lecture Materials
Publish Plan
Add Question
e-textbook
Lecture Slides
Lecturer's script
ON
Publish
Hours After lecture
All at once / Date of publish
FEB 2008
Lecture slides refers to the slides automatically generated from author's e-textbook, as well as any additional slides added by the
Assessment Book
Save
Self-paced e-learning
Online Exam
Course Outline Publish

380f

FIG. 4F

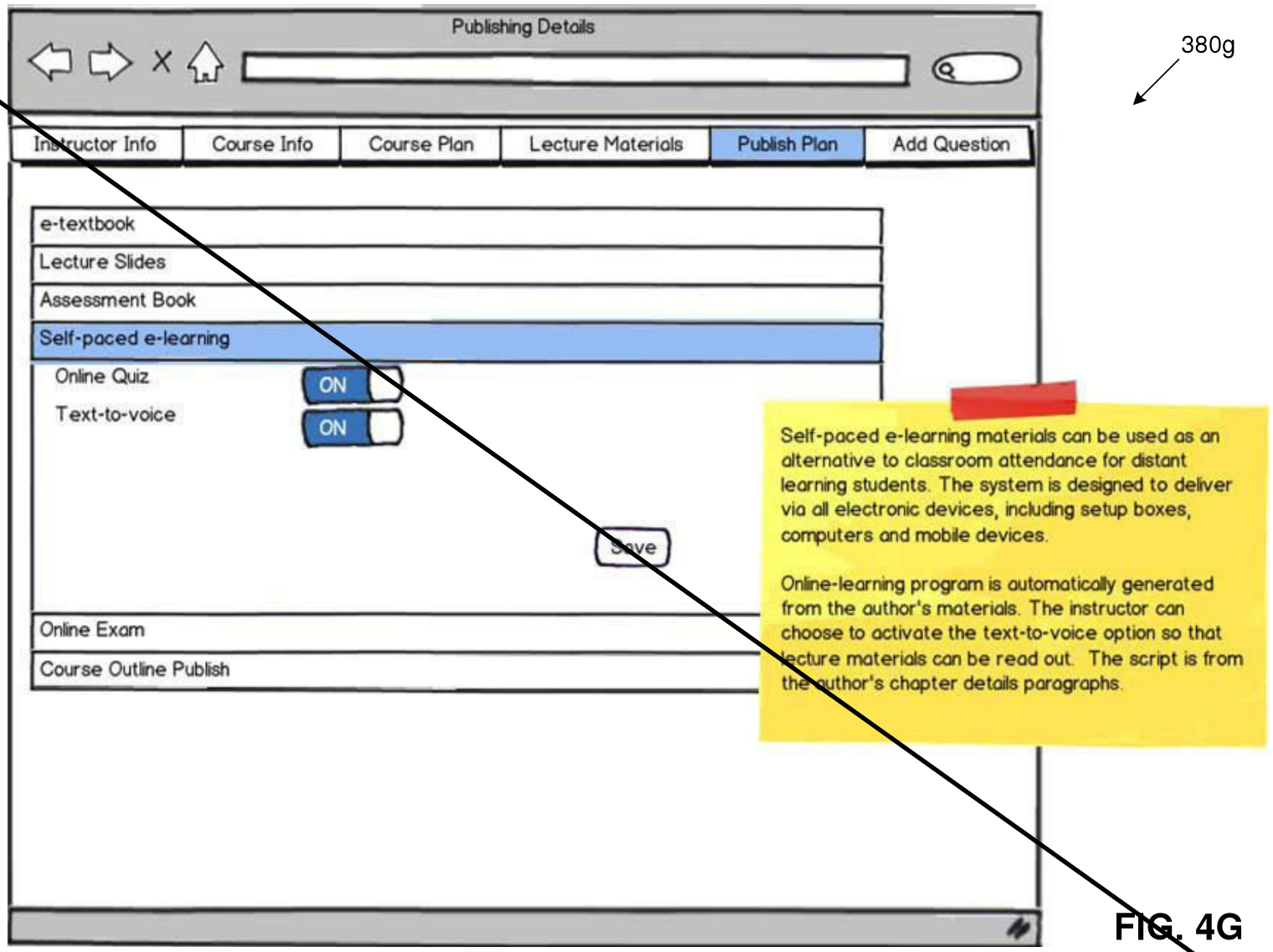

Publishing Details
380g
Instructor Info
Course Info
Course Plan
Lecture Materials
Publish Plan
Add Question
e-textbook
Lecture Slides
Assessment Book
Self-paced e-learning
Online Quiz
ON
Text-to-voice
ON
Save
Online Exam
Course Outline Publish
Self-paced e-learning materials can be used as an alternative to classroom attendance for distant learning students. The system is designed to deliver via all electronic devices, including setup boxes, computers and mobile devices.
Online-learning program is automatically generated from the author's materials. The instructor can choose to activate the text-to-voice option so that lecture materials can be read out. The script is from the author's chapter details paragraphs.

FIG. 4G

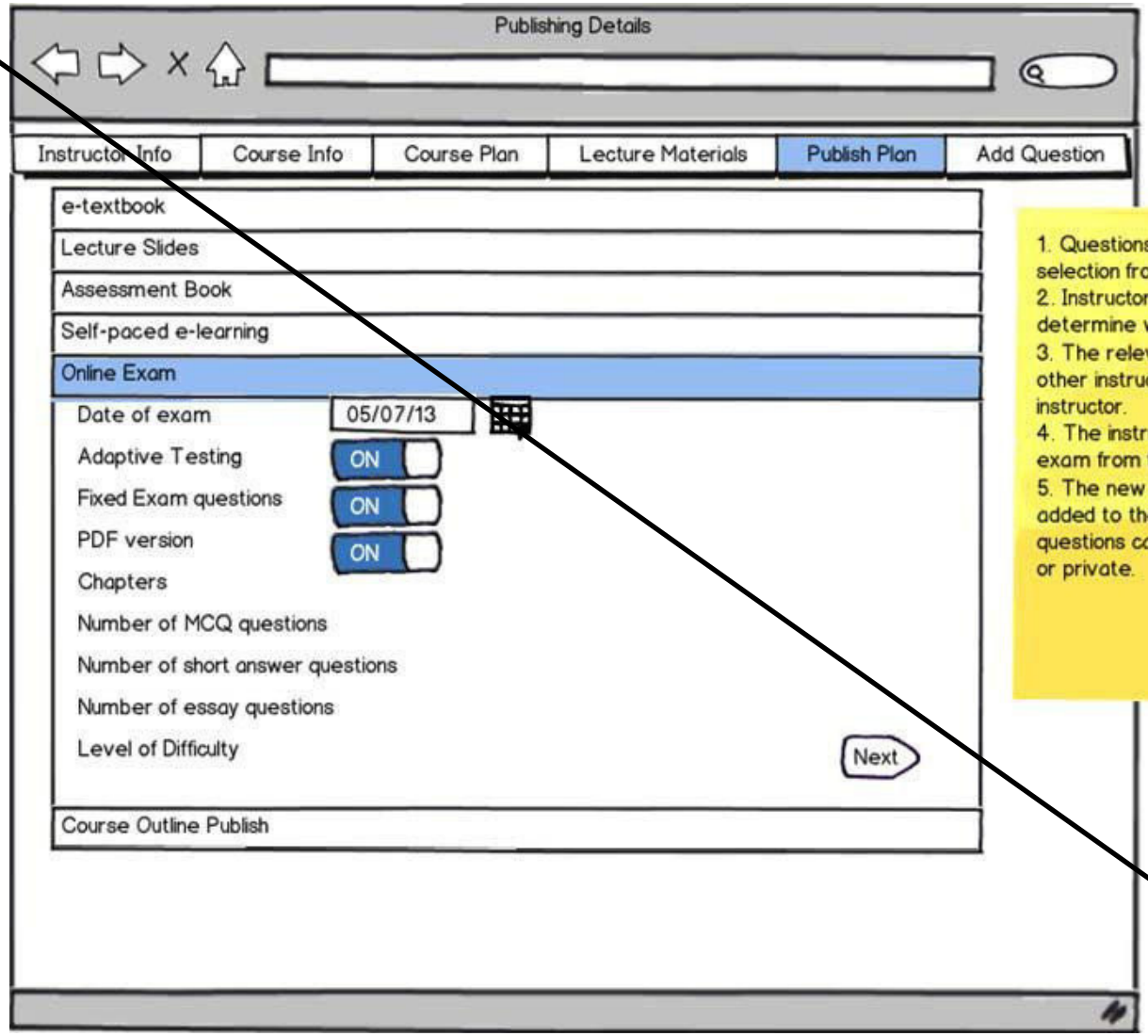
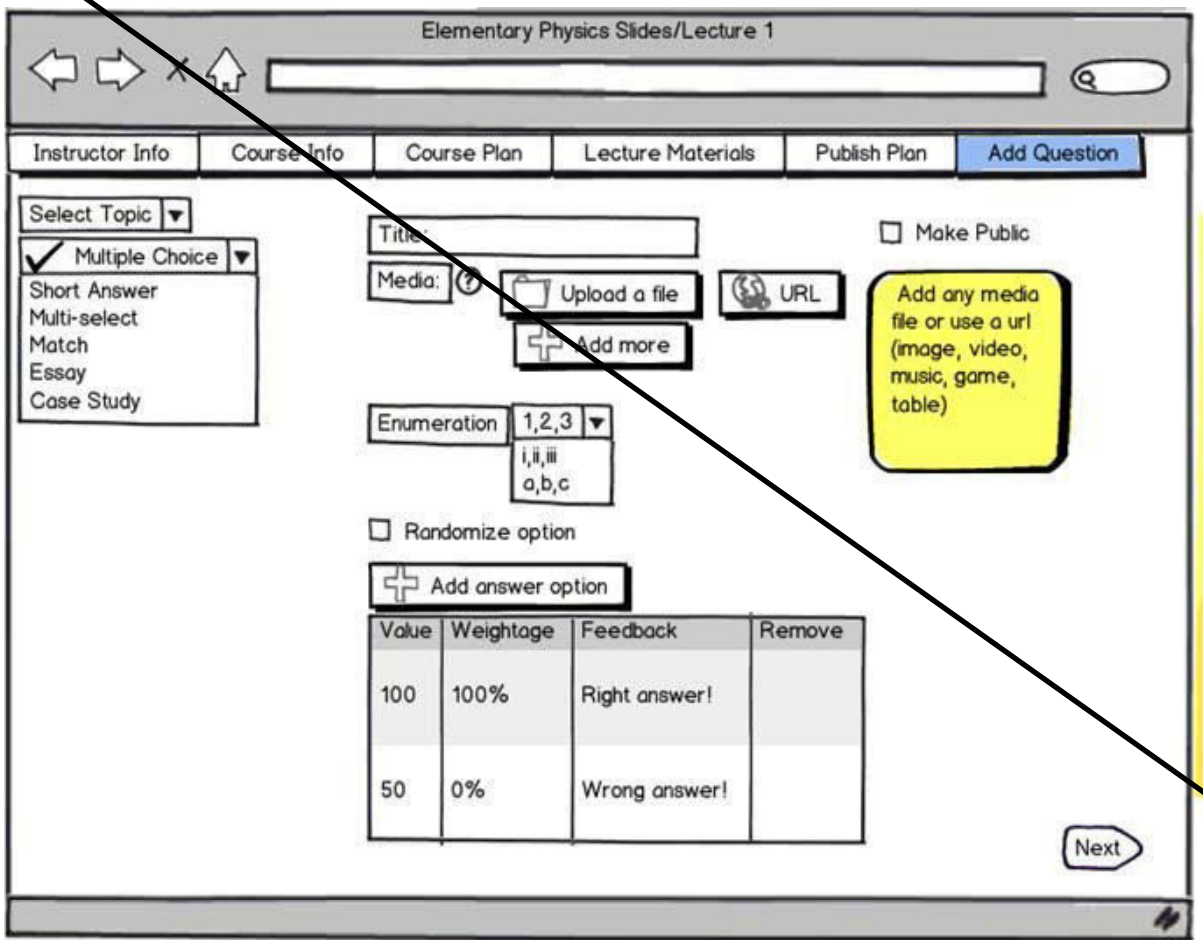

Publishing Details
380h
Instructor Info
Course Info
Course Plan
Lecture Materials
Publish Plan
Add Question
e-textbook
Lecture Slides
Assessment Book
Self-paced e-learning
Online Exam
Date of exam
05/07/13
Adaptive Testing
ON
Fixed Exam questions
ON
PDF version
ON
Chapters
Number of MCQ questions
Number of short answer questions
Number of essay questions
Level of Difficulty
Next
Course Outline Publish
1. Questions will be presented to the instructor for selection from the database.
2. Instructor can pick chapters, and the system can determine which topics were taught.
3. The relevant questions (those written by author and other instructors-contributors) will be presented to the instructor.
4. The instructor select questions to include in the exam from the list present or write new ones.
5. The new questions will be re-categorized and added to the database. The writer of the new questions can choose to make the new question public or private.

FIG. 4H



380i

When new questions are added, the system fetches a new question taxonomy code for the new question .
Questions created by lecturer has a trailing code (= instructor's user code). Instructor can choose to make the questions available to the public. These questions are always available to the author, and can be for future editions of the book if the author chooses to include them in future. Citations are always made with credits given to the originated and also a share of revenue when these are used by others.

Questions created by the author do not have this trailing code, and can be accessed by everyone.

FIG. 4I

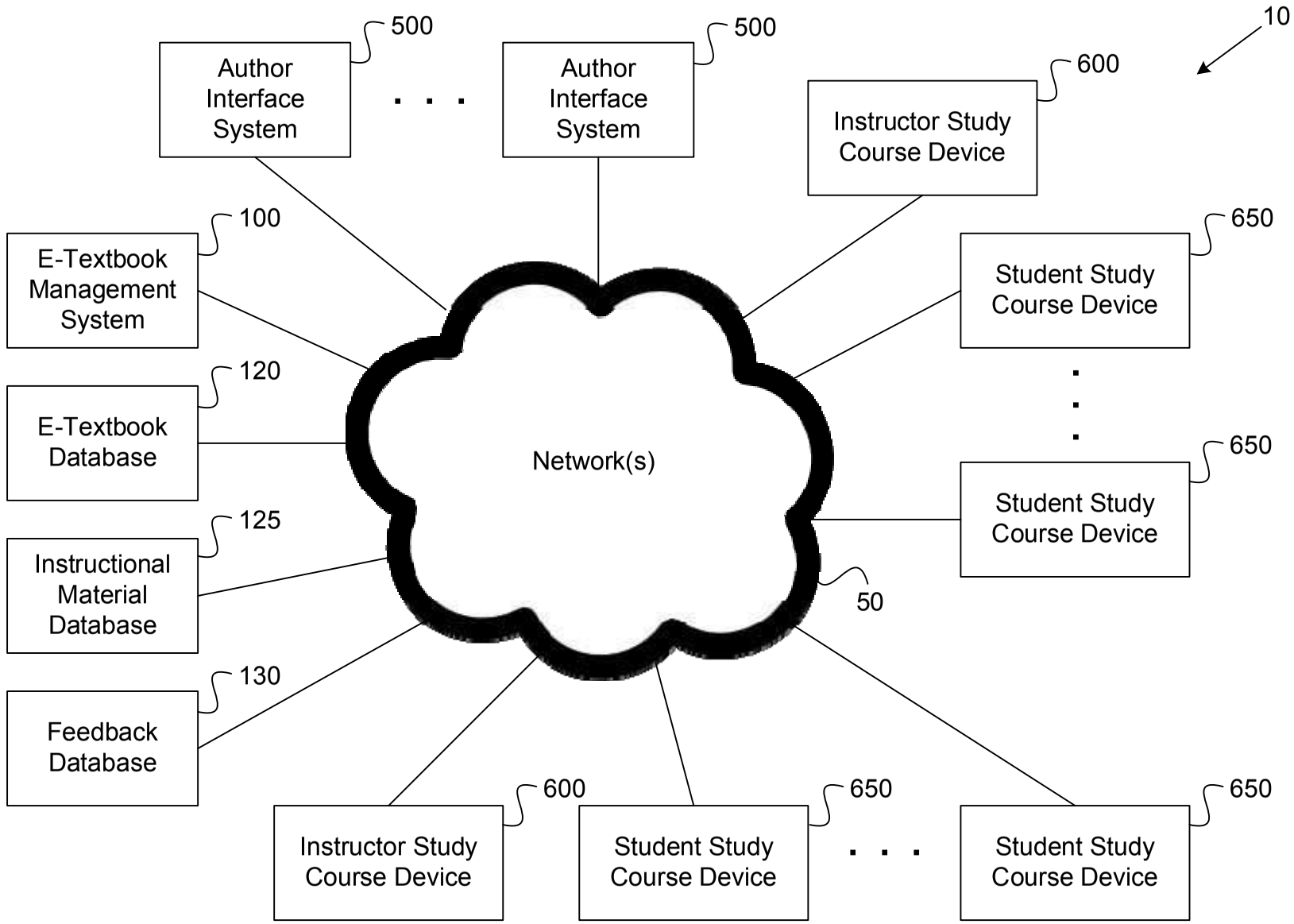

10
Author Interface System
500
Author Interface System
500
Instructor Study Course Device
600
E-Textbook Management System
100
E-Textbook Database
120
Instructional Material Database
125
Feedback Database
130
Network(s)
50
Student Study Course Device
650
Student Study Course Device
650
Instructor Study Course Device
600
Student Study Course Device
650
Student Study Course Device
650

FIG. 1

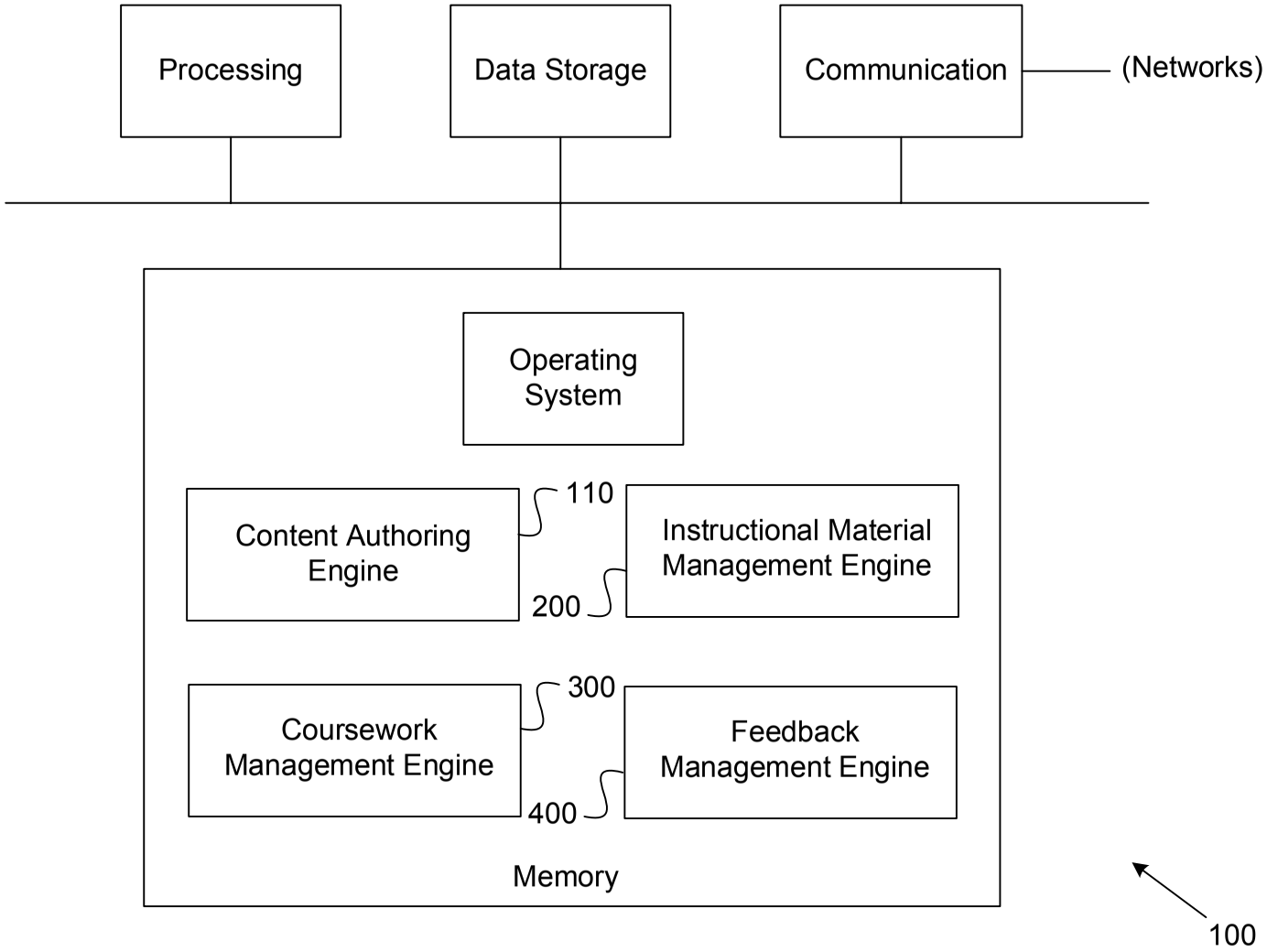

Processing
Data Storage
Communication
(Networks)
Operating System
Content Authoring Engine
110
Instructional Material Management Engine
200
Coursework Management Engine
300
Feedback Management Engine
400
Memory
100

FIG. 2

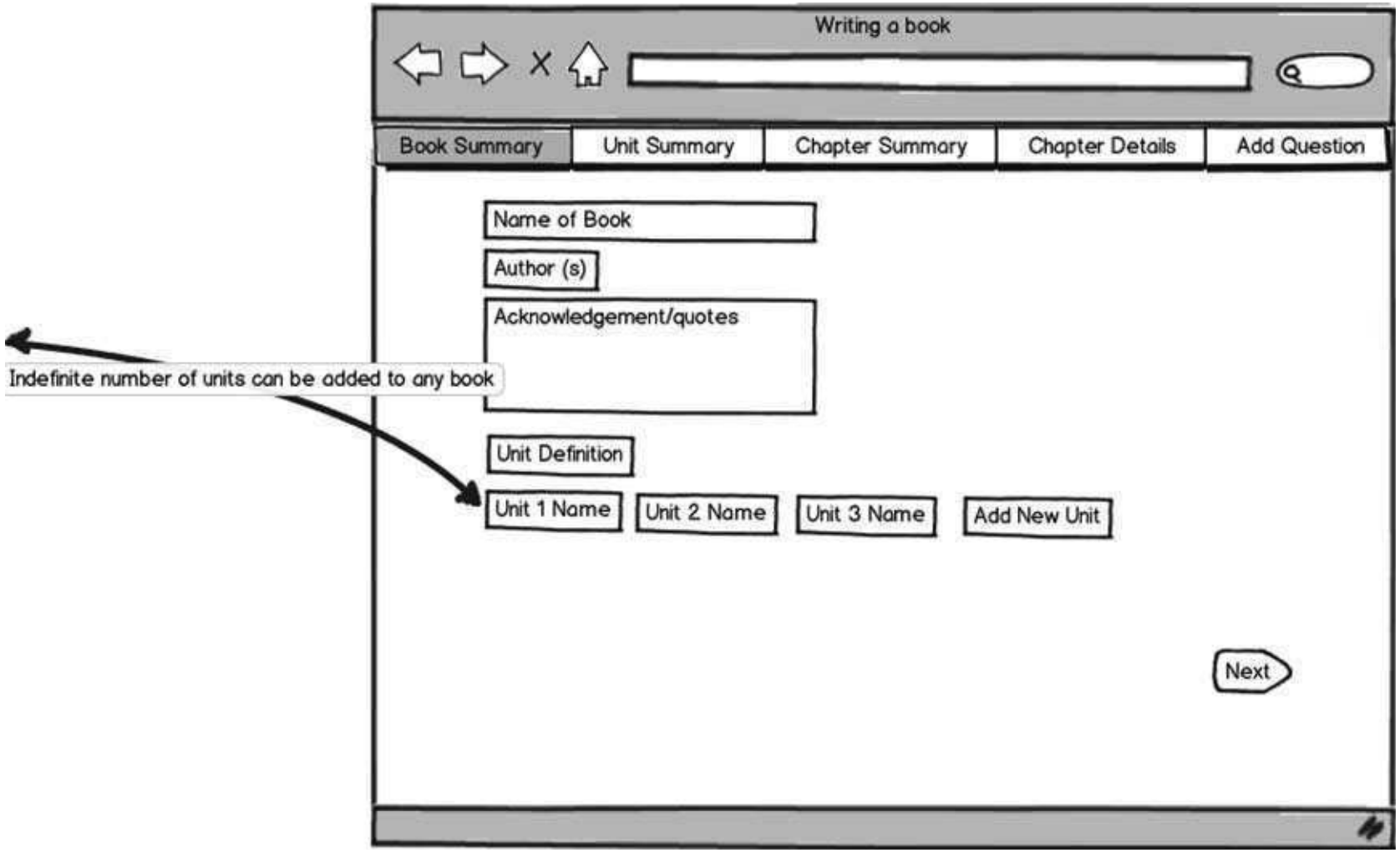

Writing a book
Book Summary
Unit Summary
Chapter Summary
Chapter Details
Add Question
Name of Book
Author (s)
Acknowledgement/quotes
Indefinite number of units can be added to any book
Unit Definition
Unit 1 Name
Unit 2 Name
Unit 3 Name
Add New Unit
Next
580a

FIG. 3A

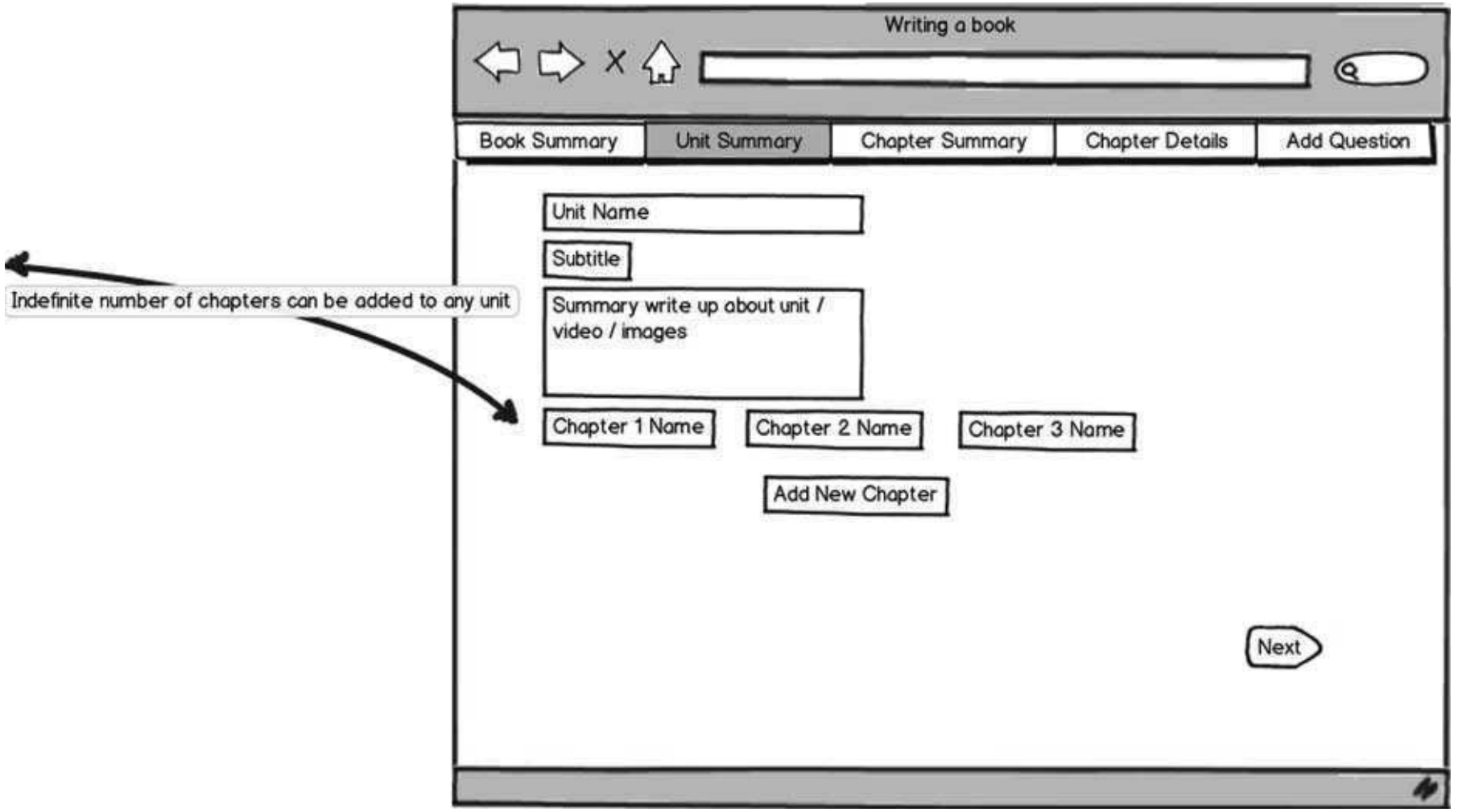
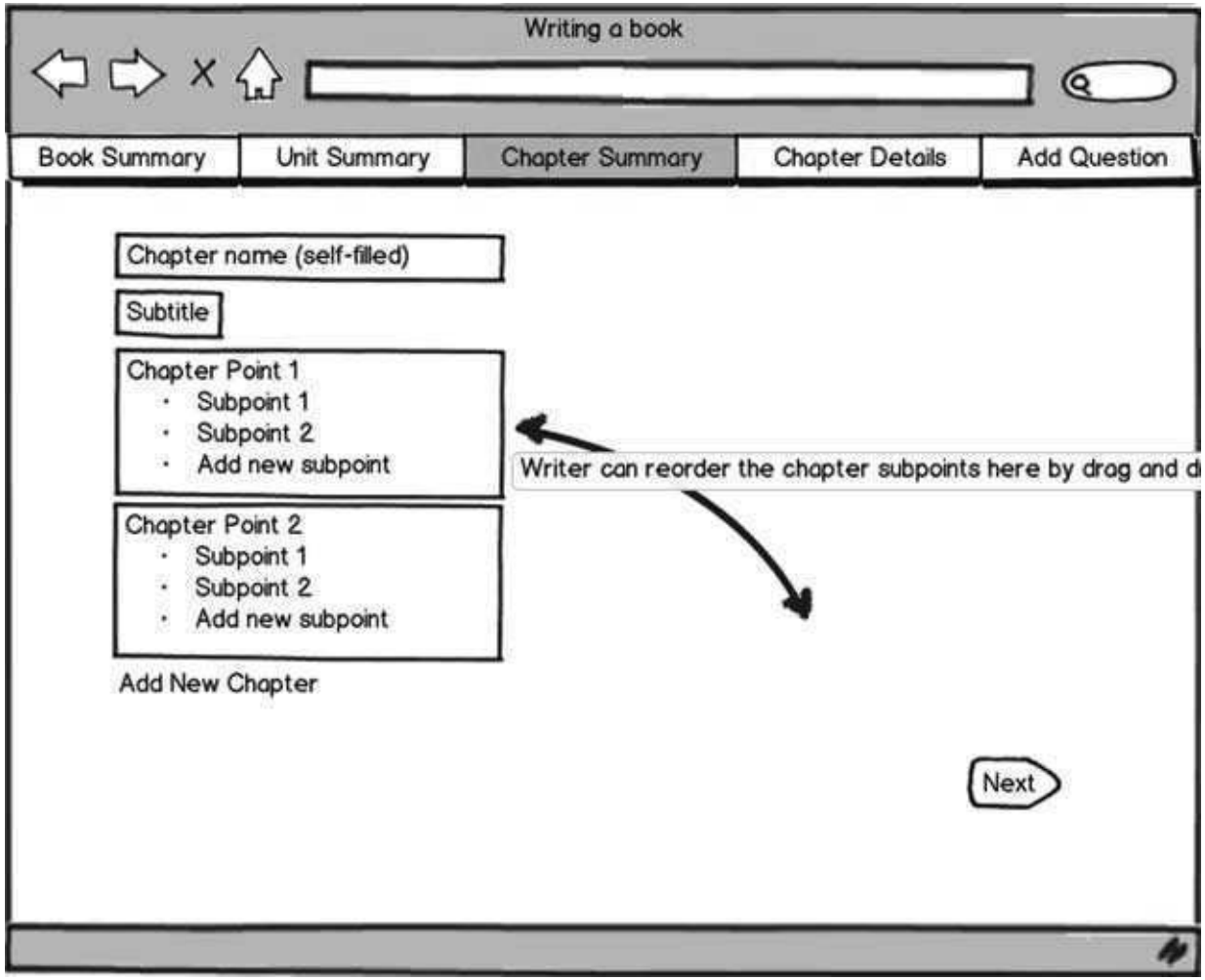

Writing a book
Book Summary
Unit Summary
Chapter Summary
Chapter Details
Add Question
Unit Name
Subtitle
Summary write up about unit / video / images
Chapter 1 Name
Chapter 2 Name
Chapter 3 Name
Add New Chapter
Next
Indefinite number of chapters can be added to any unit
580b

FIG. 3B


Writing a book
Book Summary
Unit Summary
Chapter Summary
Chapter Details
Add Question
Chapter name (self-filled)
Subtitle
Chapter Point 1
Subpoint 1
Subpoint 2
Add new subpoint
Chapter Point 2
Subpoint 1
Subpoint 2
Add new subpoint
Add New Chapter
Writer can reorder the chapter subpoints here by drag and d
Next

580c

FIG. 3C

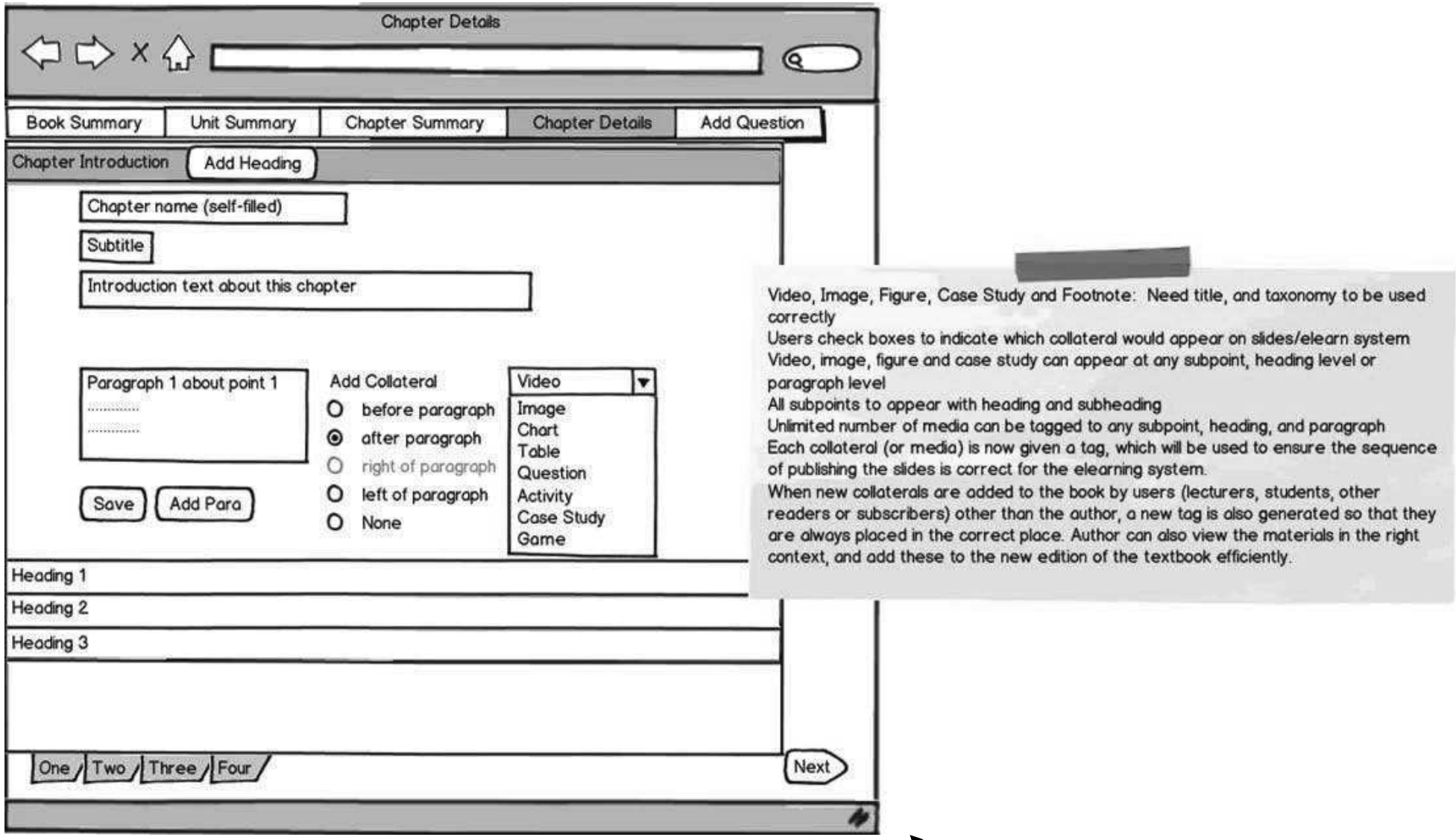

Chapter Details
Book Summary
Unit Summary
Chapter Summary
Chapter Details
Add Question
Chapter Introduction
Add Heading
Chapter name (self-filled)
Subtitle
Introduction text about this chapter
Paragraph 1 about point 1
Add Collateral
before paragraph
after paragraph
right of paragraph
left of paragraph
None
Video
Image
Chart
Table
Question
Activity
Case Study
Game
Save
Add Para
Heading 1
Heading 2
Heading 3
One
Two
Three
Four
Next
Video, Image, Figure, Case Study and Footnote: Need title, and taxonomy to be used correctly
Users check boxes to indicate which collateral would appear on slides/elearn system
Video, image, figure and case study can appear at any subpoint, heading level or paragraph level
All subpoints to appear with heading and subheading
Unlimited number of media can be tagged to any subpoint, heading, and paragraph
Each collateral (or media) is now given a tag, which will be used to ensure the sequence of publishing the slides is correct for the elearning system.
When new collaterals are added to the book by users (lecturers, students, other readers or subscribers) other than the author, a new tag is also generated so that they are always placed in the correct place. Author can also view the materials in the right context, and add these to the new edition of the textbook efficiently.
580d

FIG. 3D

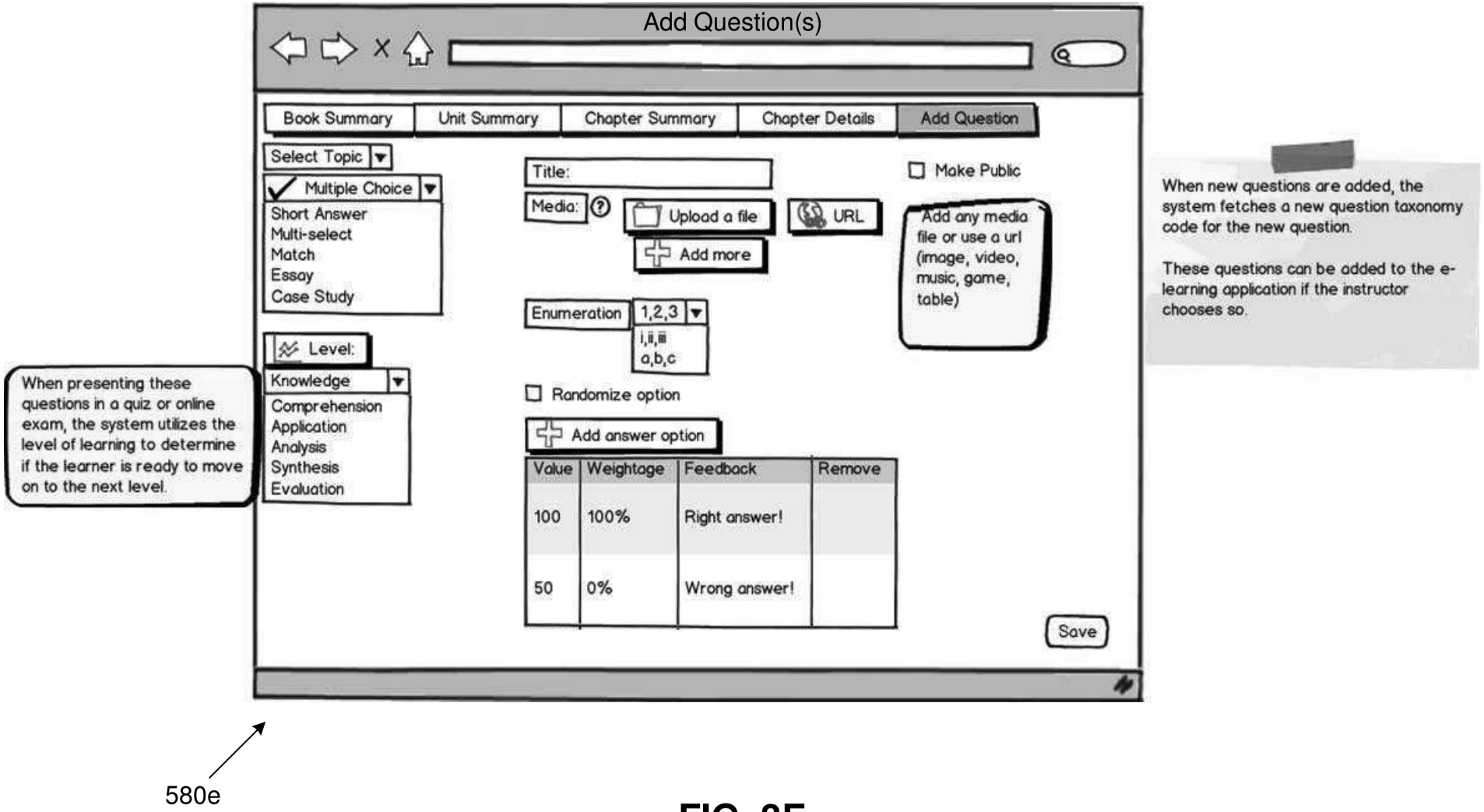

Add Question(s)
Book Summary
Unit Summary
Chapter Summary
Chapter Details
Add Question
Select Topic
Multiple Choice
Short Answer
Multi-select
Match
Essay
Case Study
Level:
Knowledge
Comprehension
Application
Analysis
Synthesis
Evaluation
When presenting these questions in a quiz or online exam, the system utilizes the level of learning to determine if the learner is ready to move on to the next level.
Title:
Make Public
Media:
Upload a file
URL
Add more
Add any media file or use a url (image, video, music, game, table)
Enumeration
1,2,3
i,ii,iii
a,b,c
Randomize option
Add answer option
Value
Weightage
Feedback
Remove
100
100%
Right answer!
50
0%
Wrong answer!
Save
When new questions are added, the system fetches a new question taxonomy code for the new question.
These questions can be added to the e-learning application if the instructor chooses so.
580e

FIG. 3E

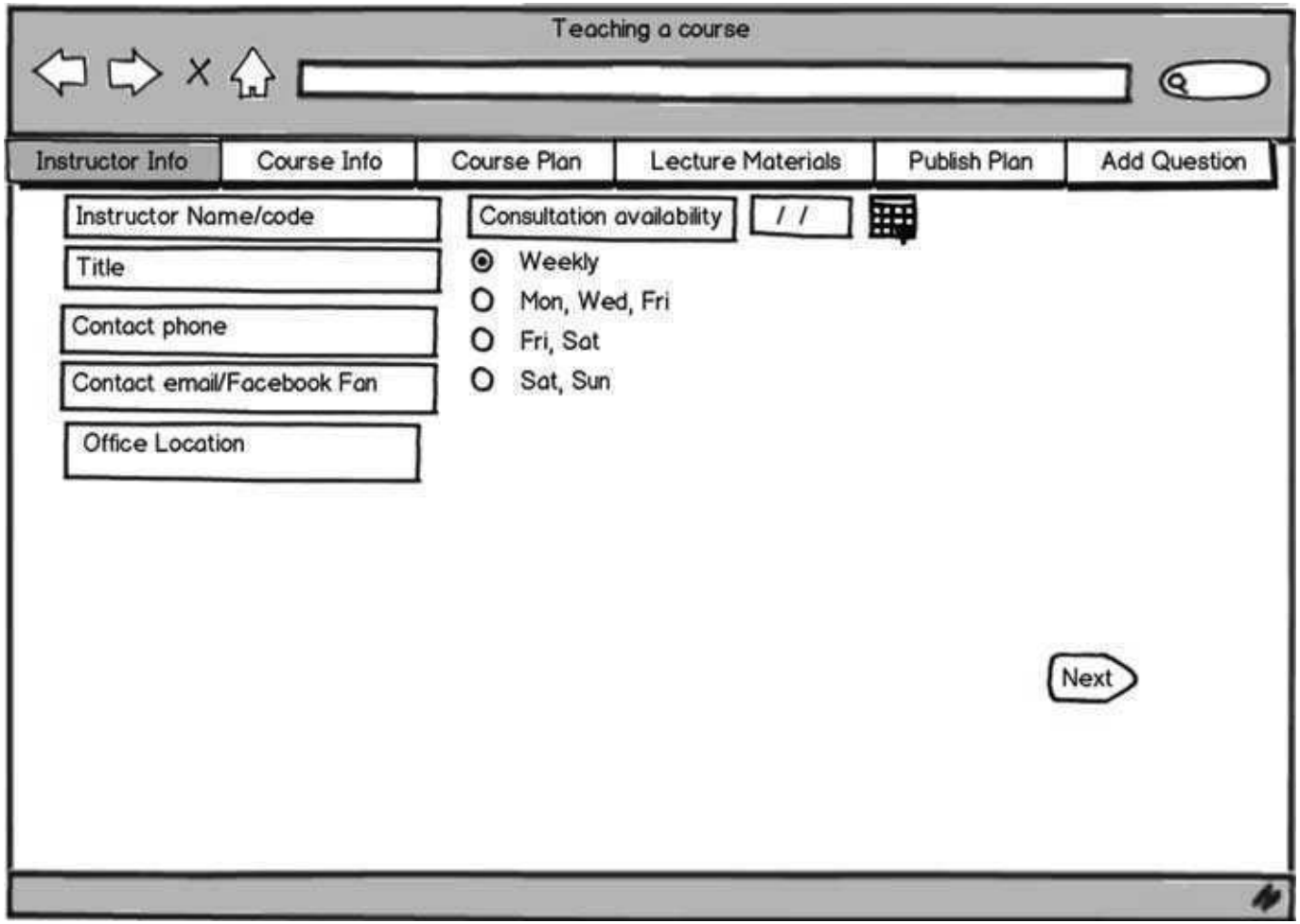

Teaching a course
Instructor Info
Course Info
Course Plan
Lecture Materials
Publish Plan
Add Question
Instructor Name/code
Title
Contact phone
Contact email/Facebook Fan
Office Location
Consultation availability
/ /
Weekly
Mon, Wed, Fri
Fri, Sat
Sat, Sun
Next
380a

FIG. 4A

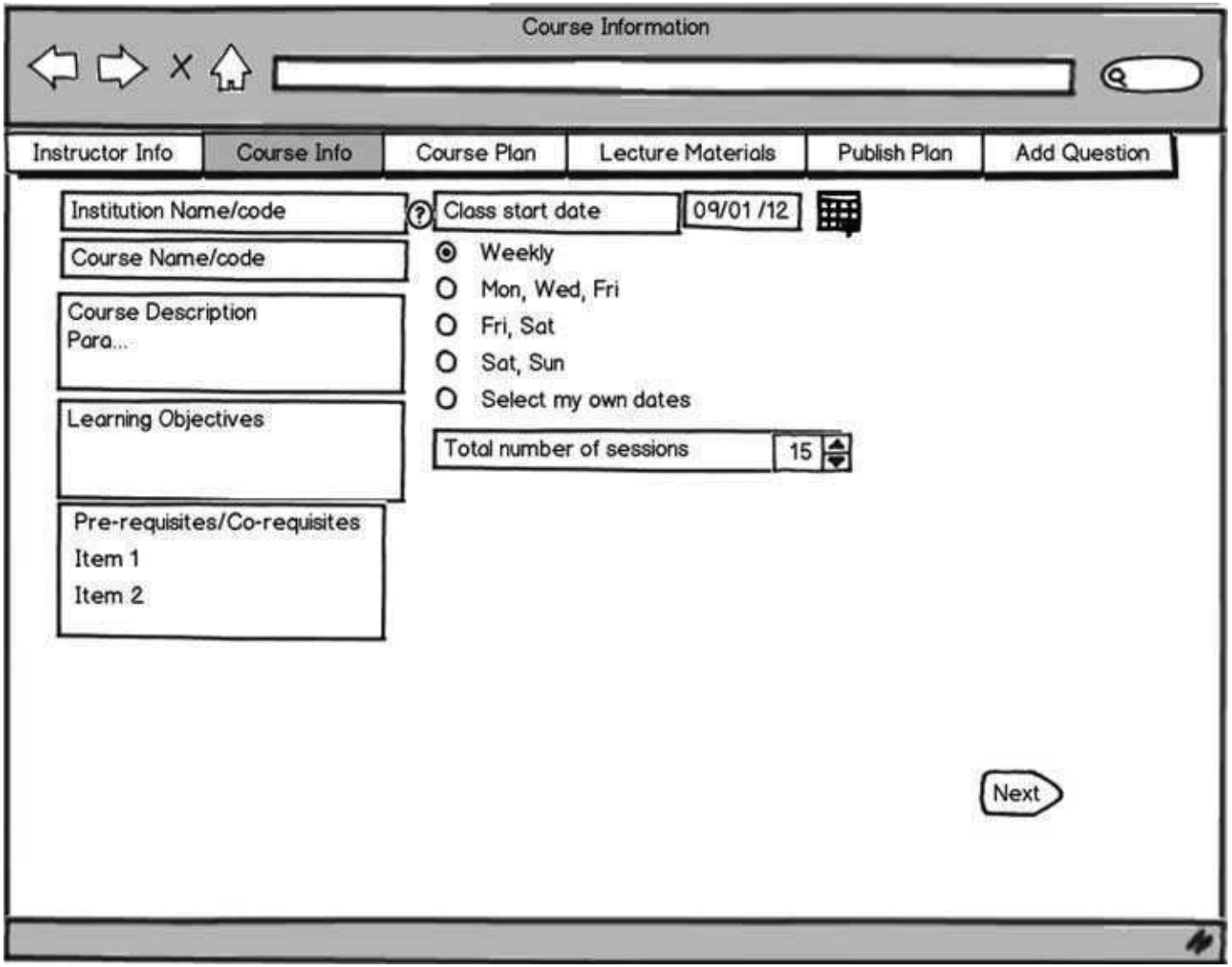
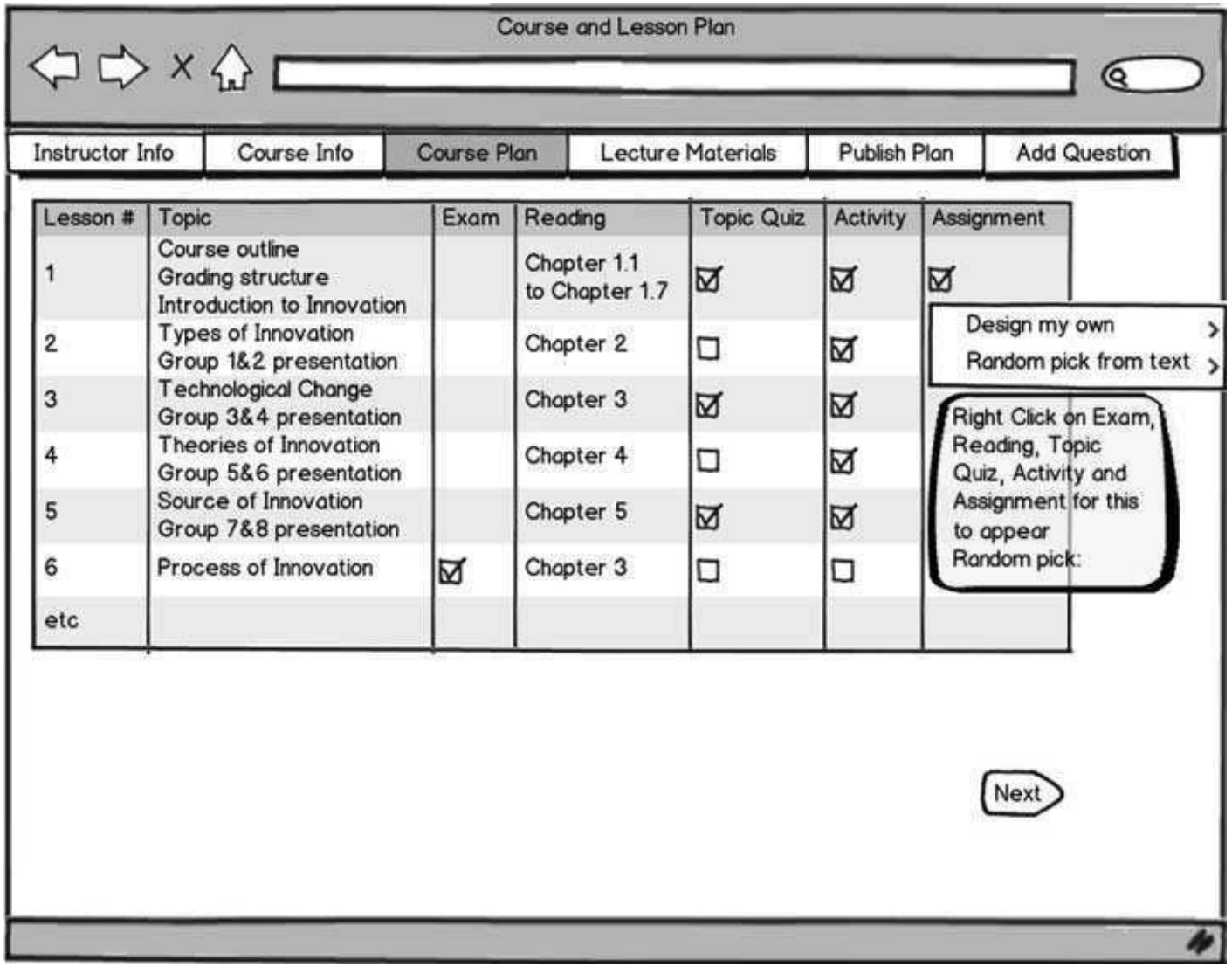

Course Information
Instructor Info
Course Info
Course Plan
Lecture Materials
Publish Plan
Add Question
Institution Name/code
Class start date
09/01 /12
Course Name/code
Weekly
Mon, Wed, Fri
Fri, Sat
Sat, Sun
Select my own dates
Course Description
Para...
Learning Objectives
Total number of sessions
15
Pre-requisites/Co-requisites
Item 1
Item 2
Next
380b

FIG. 4B


Course and Lesson Plan
Instructor Info
Course Info
Course Plan
Lecture Materials
Publish Plan
Add Question
Lesson # | Topic | Exam | Reading | Topic Quiz | Activity | Assignment
1 | Course outline Grading structure Introduction to Innovation | | Chapter 1.1 to Chapter 1.7 | ☑ | ☑ | ☑
2 | Types of Innovation Group 1&2 presentation | | Chapter 2 | ☐ | ☑ |
3 | Technological Change Group 3&4 presentation | | Chapter 3 | ☑ | ☑ |
4 | Theories of Innovation Group 5&6 presentation | | Chapter 4 | ☐ | ☑ |
5 | Source of Innovation Group 7&8 presentation | | Chapter 5 | ☑ | ☑ |
6 | Process of Innovation | ☑ | Chapter 3 | ☐ | ☐ |
etc
Design my own
Random pick from text
Right Click on Exam, Reading, Topic Quiz, Activity and Assignment for this to appear Random pick:
Next

380c

FIG. 4C

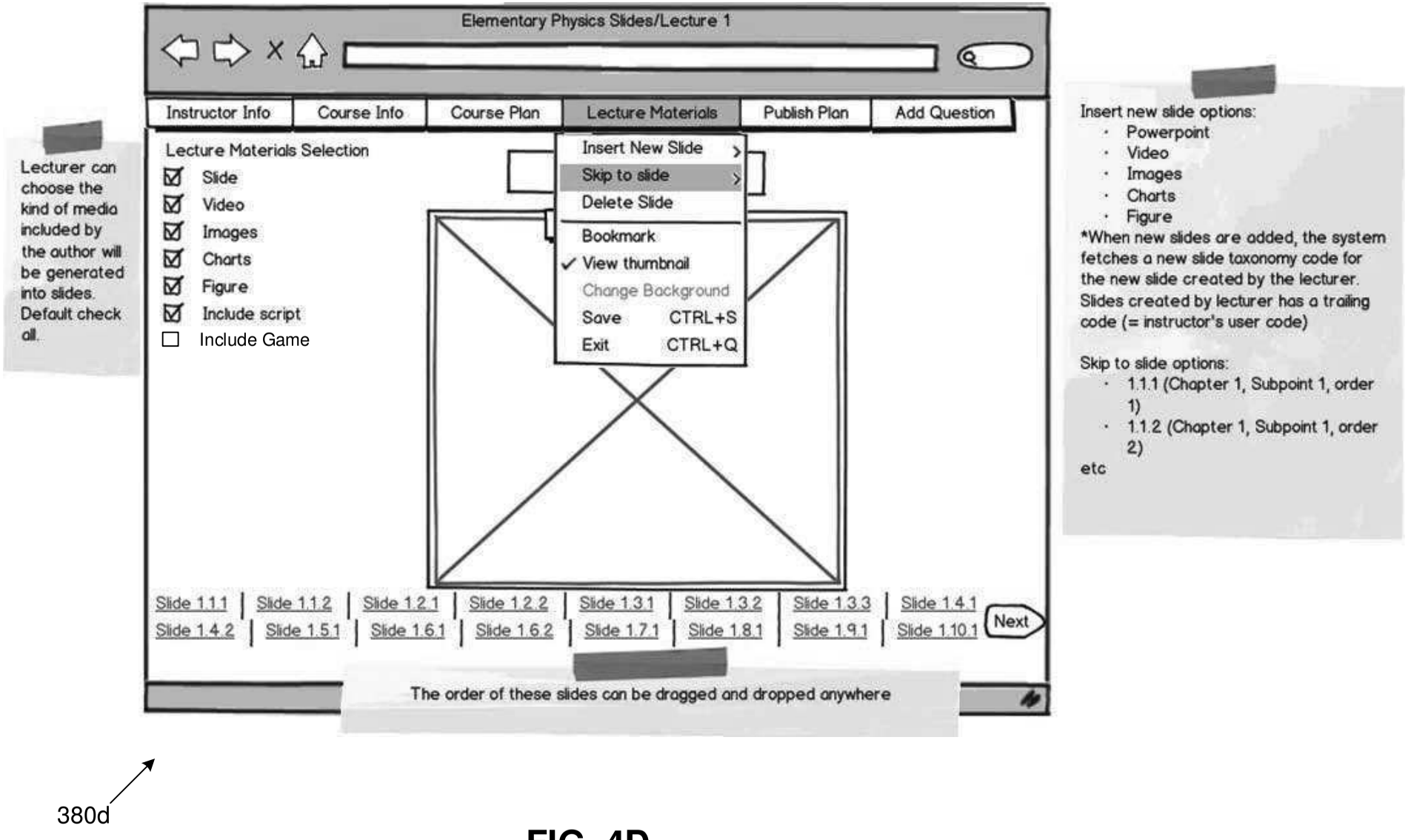
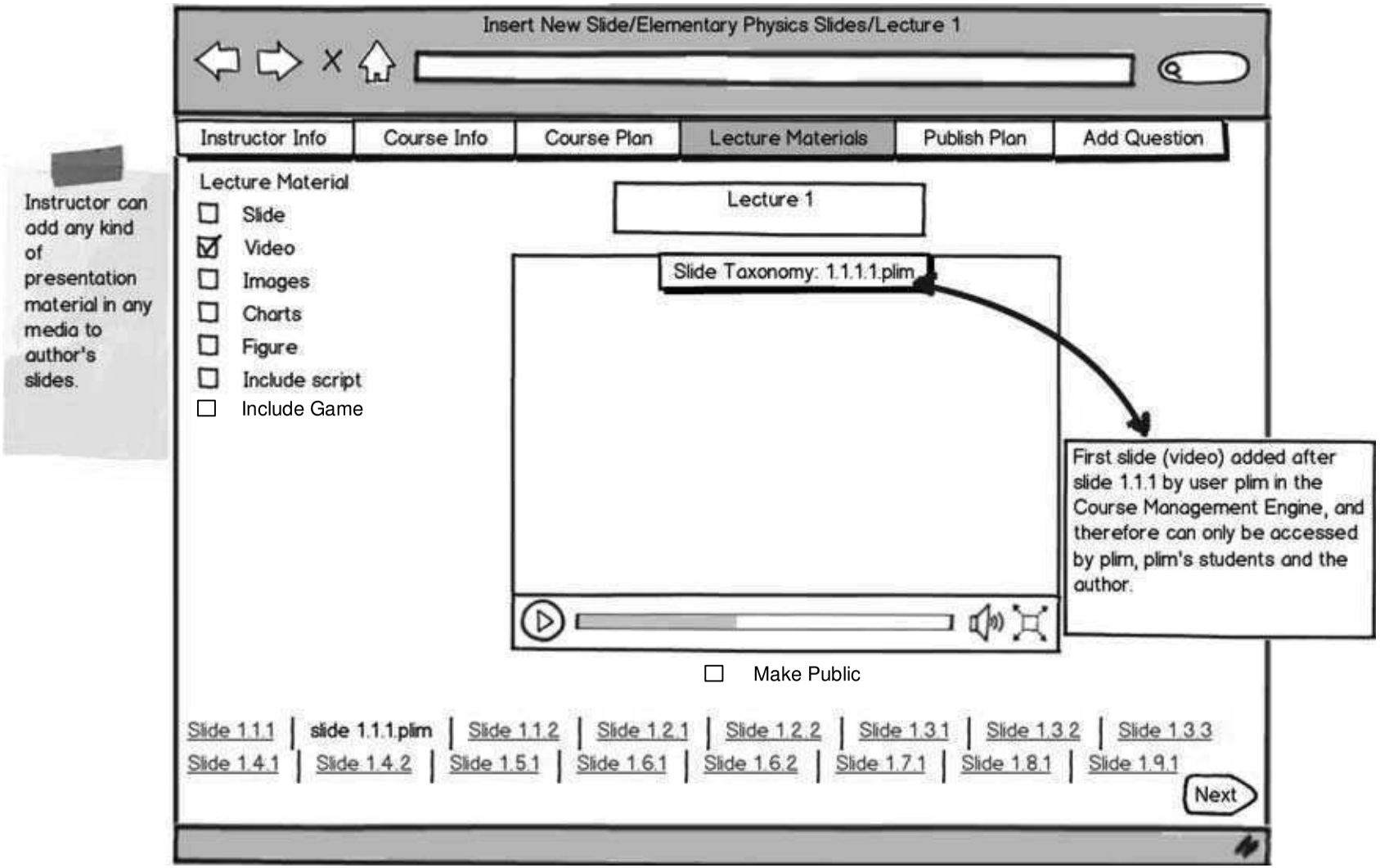
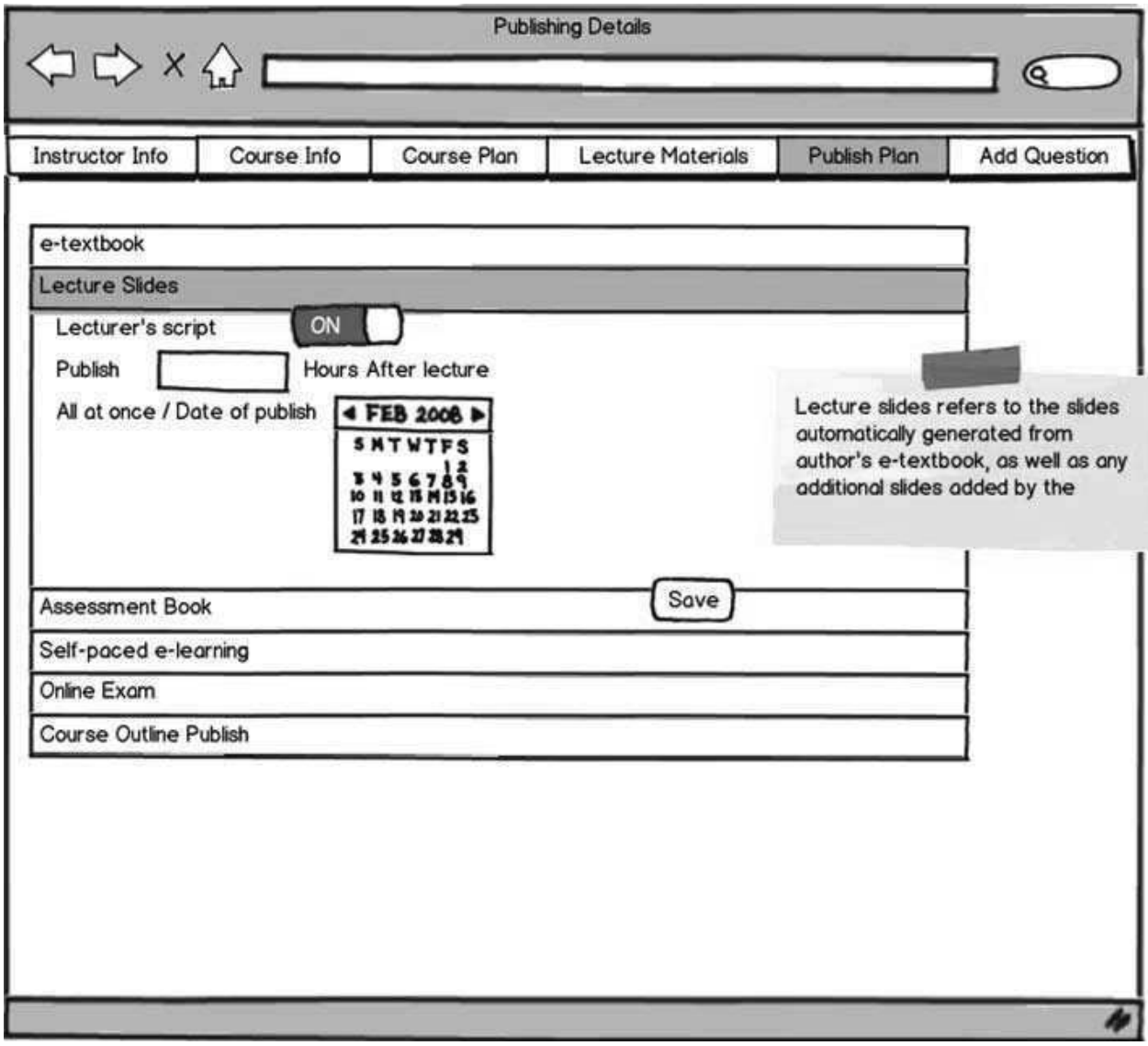

Elementary Physics Slides/Lecture 1
Instructor Info
Course Info
Course Plan
Lecture Materials
Publish Plan
Add Question
Lecture Materials Selection
Slide
Video
Images
Charts
Figure
Include script
Include Game
Insert New Slide
Skip to slide
Delete Slide
Bookmark
View thumbnail
Change Background
Save CTRL+S
Exit CTRL+Q
Slide 1.1.1 | Slide 1.1.2 | Slide 1.2.1 | Slide 1.2.2 | Slide 1.3.1 | Slide 1.3.2 | Slide 1.3.3 | Slide 1.4.1
Slide 1.4.2 | Slide 1.5.1 | Slide 1.6.1 | Slide 1.6.2 | Slide 1.7.1 | Slide 1.8.1 | Slide 1.9.1 | Slide 1.10.1
Next
Lecturer can choose the kind of media included by the author will be generated into slides. Default check all.
Insert new slide options:
· Powerpoint
· Video
· Images
· Charts
· Figure
*When new slides are added, the system fetches a new slide taxonomy code for the new slide created by the lecturer. Slides created by lecturer has a trailing code (= instructor's user code)
Skip to slide options:
· 1.1.1 (Chapter 1, Subpoint 1, order 1)
· 1.1.2 (Chapter 1, Subpoint 1, order 2)
etc
The order of these slides can be dragged and dropped anywhere
380d

FIG. 4D


Insert New Slide/Elementary Physics Slides/Lecture 1
Instructor Info
Course Info
Course Plan
Lecture Materials
Publish Plan
Add Question
Instructor can add any kind of presentation material in any media to author's slides.
Lecture Material
Slide
Video
Images
Charts
Figure
Include script
Include Game
Lecture 1
Slide Taxonomy: 1.1.1.1.plim
First slide (video) added after slide 1.1.1 by user plim in the Course Management Engine, and therefore can only be accessed by plim, plim's students and the author.
Make Public
Slide 1.1.1
slide 1.1.1.plim
Slide 1.1.2
Slide 1.2.1
Slide 1.2.2
Slide 1.3.1
Slide 1.3.2
Slide 1.3.3
Slide 1.4.1
Slide 1.4.2
Slide 1.5.1
Slide 1.6.1
Slide 1.6.2
Slide 1.7.1
Slide 1.8.1
Slide 1.9.1
Next

380e

FIG. 4E


Publishing Details
Instructor Info
Course Info
Course Plan
Lecture Materials
Publish Plan
Add Question
e-textbook
Lecture Slides
Lecturer's script
ON
Publish
Hours After lecture
All at once / Date of publish
FEB 2008
Lecture slides refers to the slides automatically generated from author's e-textbook, as well as any additional slides added by the
Assessment Book
Save
Self-paced e-learning
Online Exam
Course Outline Publish

380f

FIG. 4F

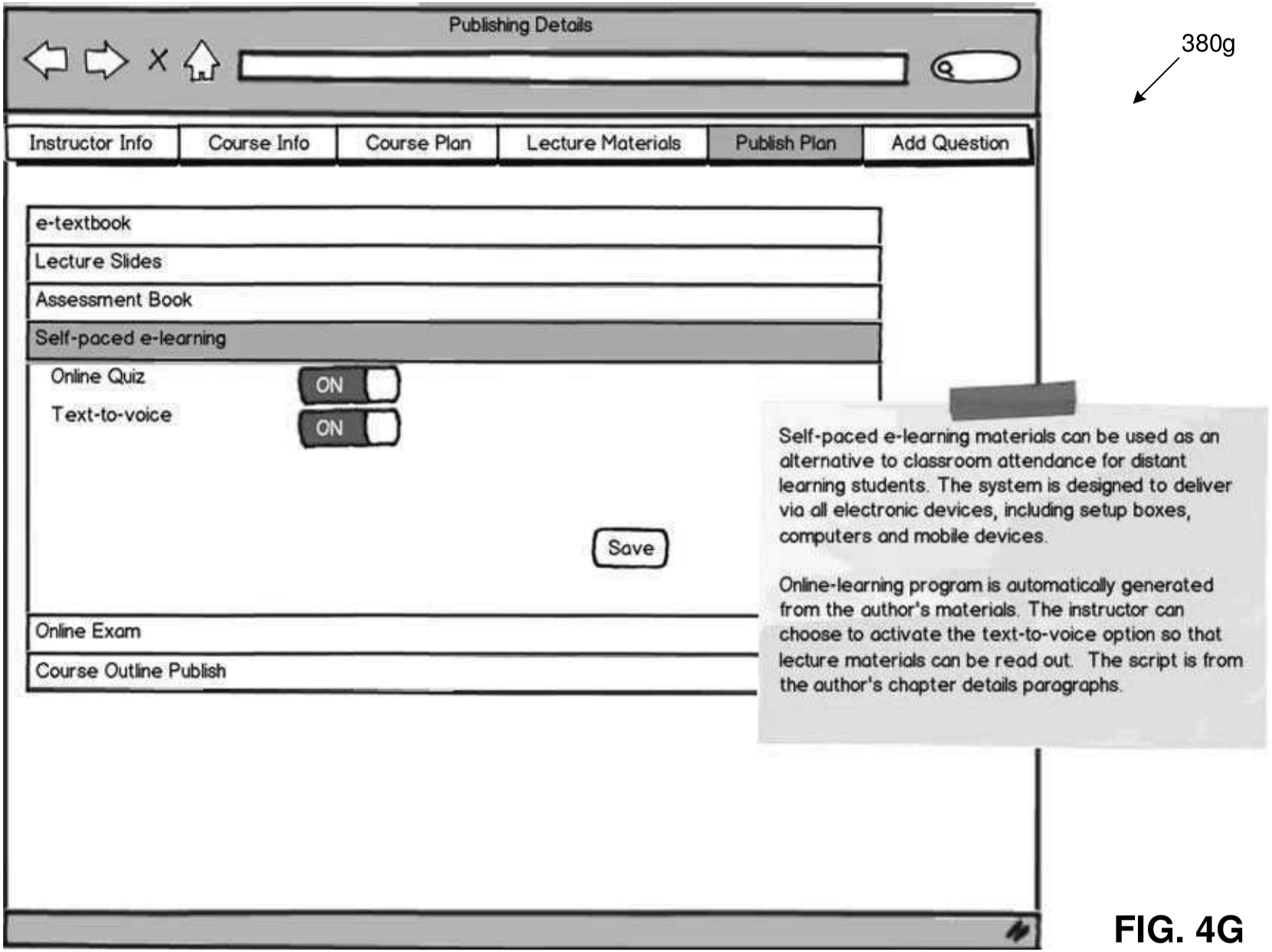

Publishing Details
380g
Instructor Info
Course Info
Course Plan
Lecture Materials
Publish Plan
Add Question
e-textbook
Lecture Slides
Assessment Book
Self-paced e-learning
Online Quiz
ON
Text-to-voice
ON
Save
Online Exam
Course Outline Publish
Self-paced e-learning materials can be used as an alternative to classroom attendance for distant learning students. The system is designed to deliver via all electronic devices, including setup boxes, computers and mobile devices.
Online-learning program is automatically generated from the author's materials. The instructor can choose to activate the text-to-voice option so that lecture materials can be read out. The script is from the author's chapter details paragraphs.

FIG. 4G

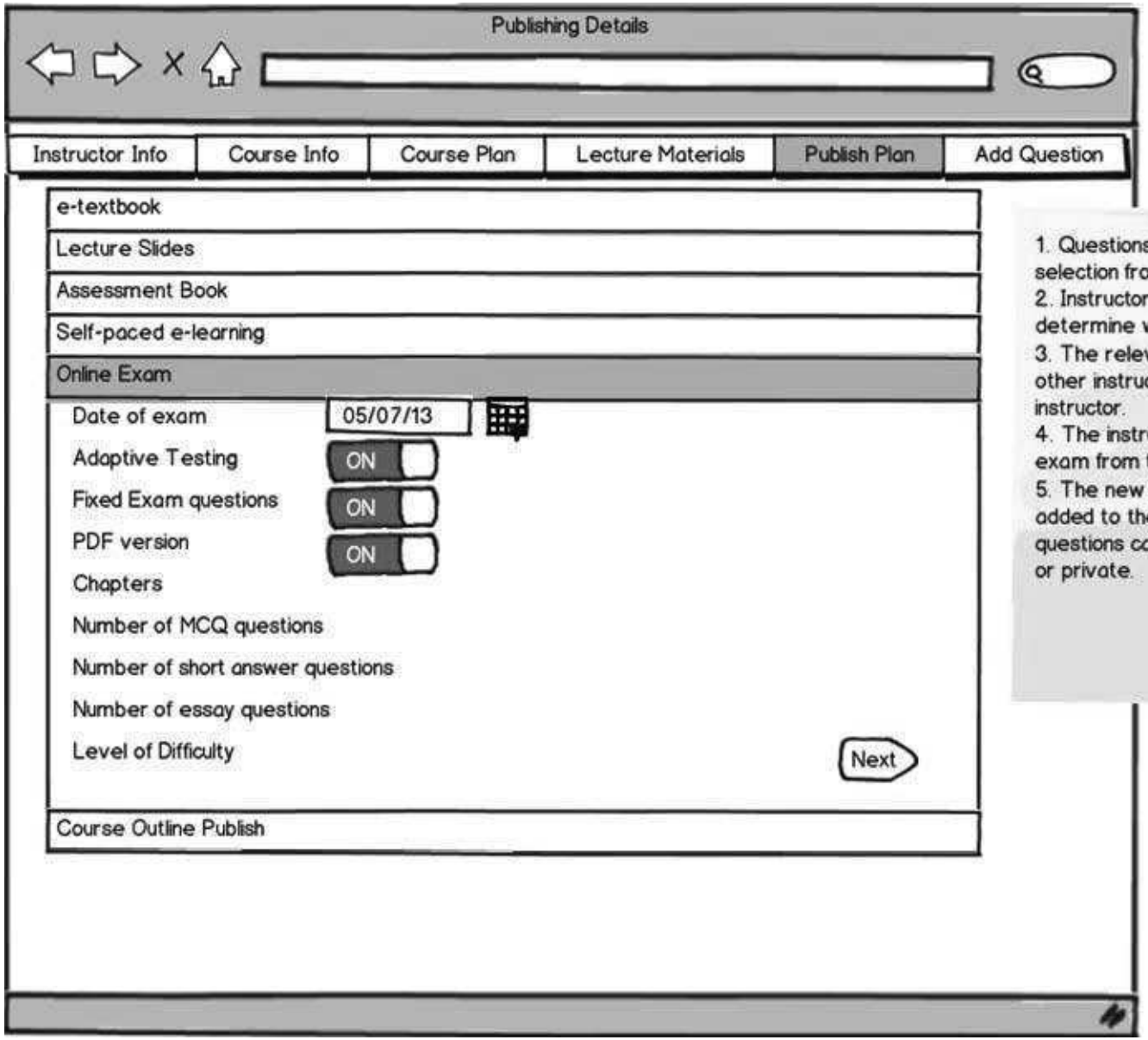
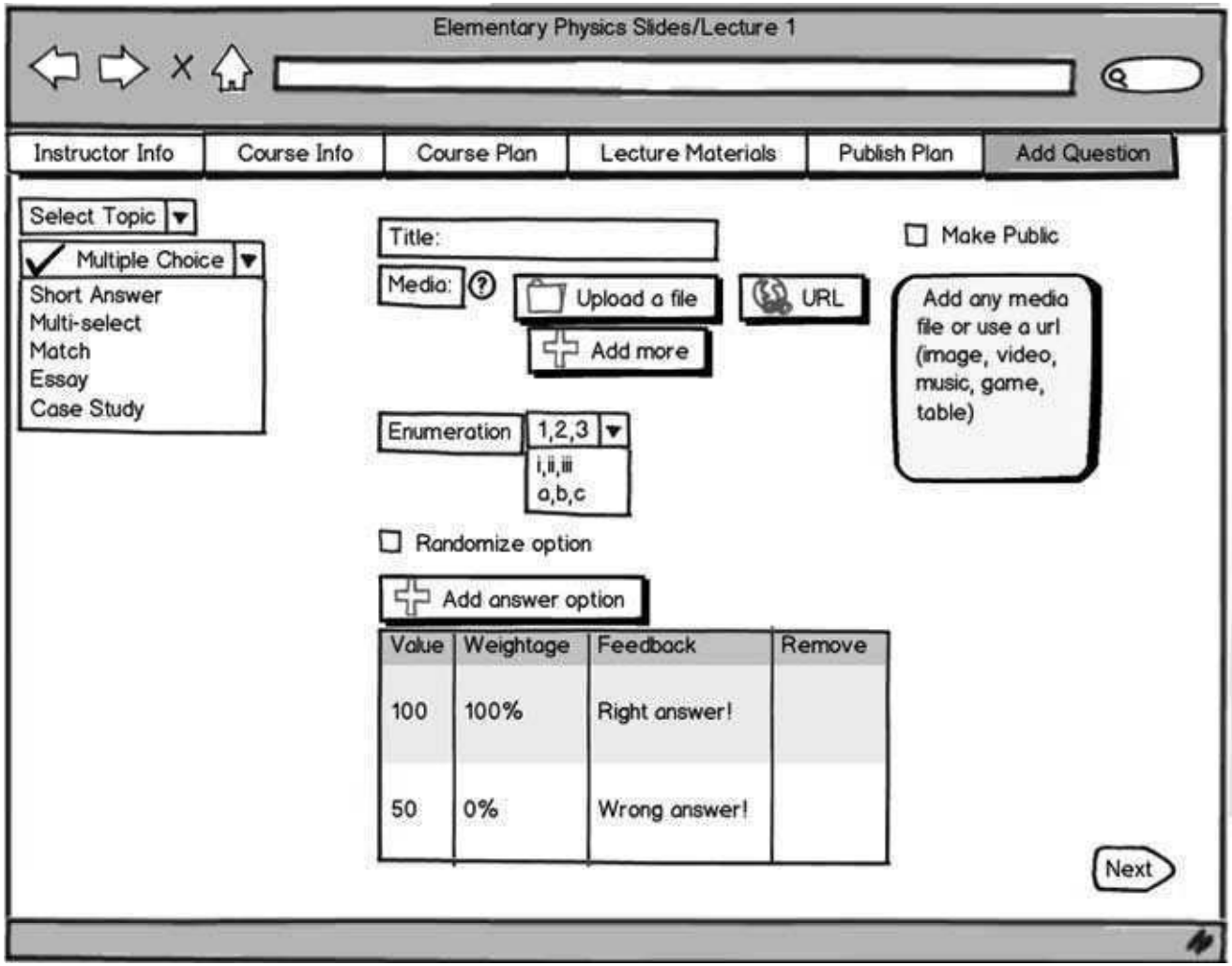

Publishing Details
380h
Instructor Info
Course Info
Course Plan
Lecture Materials
Publish Plan
Add Question
e-textbook
Lecture Slides
Assessment Book
Self-paced e-learning
Online Exam
Date of exam
05/07/13
Adaptive Testing
ON
Fixed Exam questions
ON
PDF version
ON
Chapters
Number of MCQ questions
Number of short answer questions
Number of essay questions
Level of Difficulty
Next
Course Outline Publish
1. Questions will be presented to the instructor for selection from the database.
2. Instructor can pick chapters, and the system can determine which topics were taught.
3. The relevant questions (those written by author and other instructors-contributors) will be presented to the instructor.
4. The instructor select questions to include in the exam from the list present or write new ones.
5. The new questions will be re-categorized and added to the database. The writer of the new questions can choose to make the new question public or private.

FIG. 4H



380i

When new questions are added, the system fetches a new question taxonomy code for the new question .
Questions created by lecturer has a trailing code (= instructor's user code). Instructor can choose to make the questions available to the public. These questions are always available to the author, and can be for future editions of the book if the author chooses to include them in future. Citations are always made with credits given to the originated and also a share of revenue when these are used by others.

Questions created by the author do not have this trailing code, and can be accessed by everyone.

FIG. 4I