Hack the Textbook:
The Textbook Security Project

Jon R. Kibler
Mike Cooper
textbook.security@gmail.com

Introduction

- **The Problem**
- **Fixing It**
- **The Project**
- **How *You* Can Help!**
- **Demo**
- **Q&A**

The Problem

- **Most security problems are caused by bad code**
- **Bad code is caused by students not being taught how to write good code**
  - **Most programming textbooks have no security content**
  - **Many programming textbooks actually teach insecure programming practices and/or use vulnerable code in their examples**
  - **Instructors have to teach what is in the textbooks**
    - **Most programming instructors are not security experts**
    - **Instructors are evaluated on how closely they follow the textbooks in a course**

Fixing It

- **Industry View**
  - **Students should be taught good software development practices in school**
  - **Tired of having to retrain new graduates**
- **Academic View**
  - **Not a real issue**
    - **Publishers would be pressuring authors to change their textbooks if there was a real need**
    - **Students should be learning theory, not application**
  - **No resources**
    - **Not every instructor is a security expert**
    - **Not enough class time to add material to courses**

The Project

- **The Textbook Security Project:**

TTBSP.ORG

HackTheTextbook.org

The Project

- **Immediate Goals:**
  - **Publicly expose security flaws in popular textbooks**
  - **Encourage authors to use secure software development practices in their textbooks**
    - **Revise existing textbooks**
    - **Get it right the first time in new textbooks**

The Project

- **Long Term Objectives**
    - **To make secure software development practices the standard way programming is taught**
    - **To make security an integral part of every computer science course**
    - **To become a resource that textbook authors and classroom instructors can use to stay up-to-date on the latest software security issues**

How *You* Can Help!

- **Everyone:**
  - **Identify textbooks and courses using them**
  - **Review textbooks**
  - **Edit reviews**
  - **Link to site**
  - **Link to reviews**
  - **Contribute best practices white papers**
  - **Help local universities to understand their impact on software security**
- **Publishers:**
  - **Contribute books for review**
  - **Contribute funding to support the project**

How *You* Can Help!

- **Users:**
  - **Everyone**
    - **View all technical content**
  - **Semi-Anonymous Submitter**
    - **Requires email address for submission verification**
    - **Identity never publicly disclosed**
    - **Can use the following features:**
      - **Submit books for review**
      - **Submit courses using books**
      - **Comment on reviews**

How *You* Can Help!

- **Users:**
  - **Registered User**
    - **Basic Registration Information:**
      - **Real name and handle**
      - **Basic contact information, including email address**
      - **Affiliation: School, company, etc.**
      - **Email address verifies registration**
    - **Only handle publicly disclosed**
    - **Can use the following features:**
      - **Submit books for review**
      - **Submit courses using books**
      - **Comment on reviews**

How *You* Can Help!

- **Users:**
  - **Reviewers**
    - **Requires registration:**
      - **Basic registration information**
      - **Brief bio**
    - **Handle or real name is publicly disclosed**
    - **Bio is viewable by confirmed authors and publishers whose books you have reviewed**
    - **Can use the following features:**
      - **All registered user features**
      - **Review textbooks**
      - **Contribute white papers**

How *You* Can Help!

- **Users:**
  - **Editors**
    - **Requires registration:**
      - **Basic registration information**
      - **Brief bio**
      - **Demonstrated technical editing experience**
    - **Invisible to everyone except reviewers and staff**
    - **Can use the following features:**
      - **All reviewer features**
      - **Edit site content (coordinated with content providers)**

How *You* Can Help!

- **Users:**
  - **Author / Publisher:**
    - **Requires registration:**
      - **Basic registration information**
      - **Requires direct contact information**
    - **Invisible to everyone except reviewers and staff**
    - **Can use the following features:**
      - **All registered user features**
      - **View bios of reviewers of your textbooks**
      - **Request reviewers contact them**

How *You* Can Help!

- **Notes on workflow:**
  - **Most content will not be made public until reviewed and approved.**
    - **Exceptions:**
      - **Book submissions**
      - **Course submissions**
  - **Users not logged in will be required to provide an email address to which a confirmation link will be sent. Link must be clicked on before content is made public.**
  - **Editors may contact reviewers and request possible changes to make reviews clearer, etc.**
  - **Authors and publishers may request that you contact them regarding your reviews.**

How *You* Can Help!

Please keep it professional!!

Stick to the facts!!

DEMONSTRATION

http://www.zdnetasia.com/news/internet/0,39044908,39378888,00.htm

Summary

- **The key to fixing our security problems is to fix our code problems**

- **The key to fixing our code problems is to teach programmers to write good code**

- **The key to teaching programmers to write good code is to use textbooks that teach secure software development practices**

- **We need _your_ help to make this happen!**

One final request...

Please do not pwn us!

Questions?

Thank You!

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