

# Robotics OpenCourseWare

Aaron M. Dollar<sup>1</sup> and Daniela Rus<sup>2</sup>

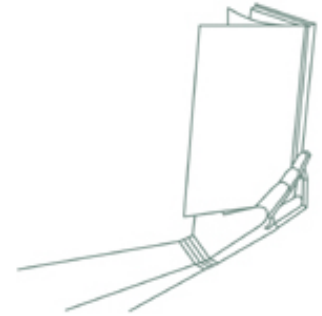
Massachusetts Institute of Technology

<sup>1</sup>Health Sciences and Technology and the Media Lab

<sup>2</sup>Computer Science and Artificial Intelligence Lab

# Origins

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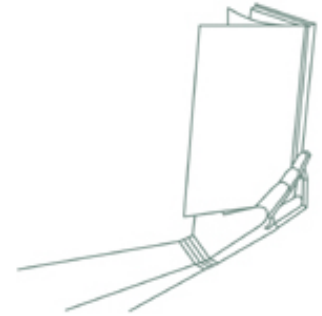


- 2005 RSS Robotics Education Workshop
  - 30+ participants from a wide range of institutions
  - Strongly stated need for repository of robotics curriculum materials [Rus 2006]

Daniela Rus, “Teaching Robotics Everywhere”, IEEE Robotics and Automation Magazine, March 2006.

# Objectives

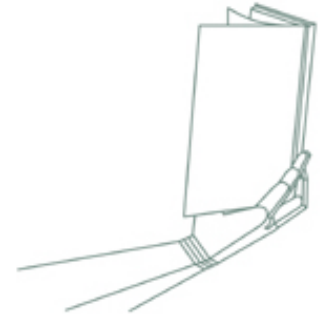
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- Facilitate the introduction of new robotics courses
  - Particularly at ‘non-expert’ institutions
    - Increase awareness and expand the field
- Make existing courses better
  - Robotics is fairly new pedagogical field and courses can use improvement

# Long-term Goals

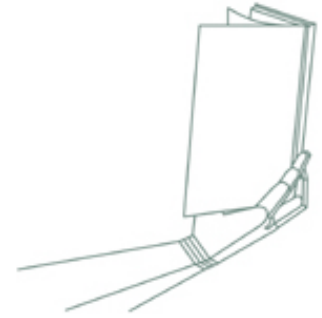
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- ‘Standard’ robotics curricula/modules
  - Based on feedback from site users/contributors
  - Hardware platforms for laboratory exercises
- Outreach
  - Summer schools for training of instructors

# Related Sites

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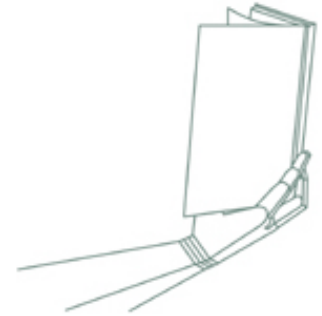


- NASA's Robotics Curriculum Clearinghouse
  - Reviews, indexes, and provides pointers to off-site material
  - Limited in scope to K-12
  - (currently offline for unknown reason)

Aaron M. Dollar and Daniela Rus, "Spotlight on the Robotics Curriculum Clearinghouse", IEEE Robotics and Automation Magazine, June 2006.

# Related Sites

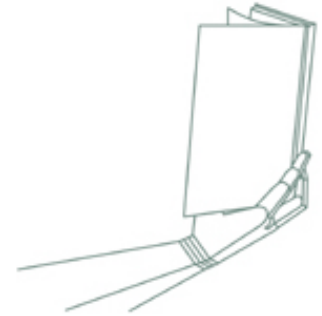
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- OpenCourseWare websites
  - Part of OpenCourseWare consortium
    - Headquartered at Utah State University
  - Mostly individual institutions posting materials from their own faculty
    - MIT is largest current OCW site

# Related Sites

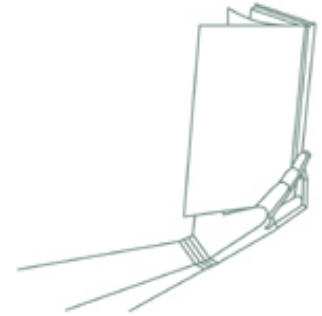
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- OpenCourseWare websites
  - Focused more on self-learners and developing nations
  - Materials are mostly organized in documents
    - Posted in pdf format
    - Less useful for faculty

# Round-table Discussion

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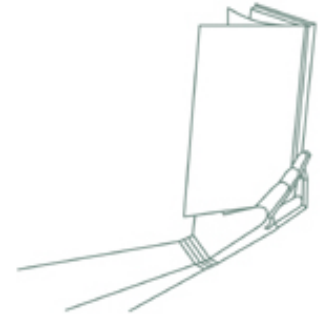


- Please take a moment now or in the next hour to fill out a brief questionnaire
  - Help in developing the site
  - Convince potential funding sources that this resource is needed
    - We've talked to IEEE RAS member activities board
      - Submitted proposal to 'New Initiatives' (with Paolo Fiorini)



# Round-table Discussion

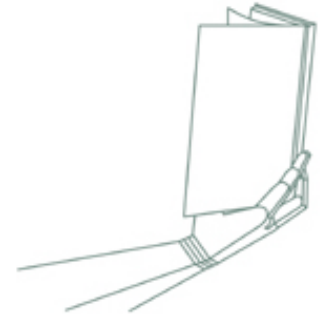
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- Where do textbooks fall short and what types of materials would be most useful to you as an educator?
  - .ppt slides
  - Free- or limited-use multimedia (movies and pics)
    - Note that OCW is a helpful resource for license issues
  - Assignments and laboratory exercises
  - Hardware platform recommendations

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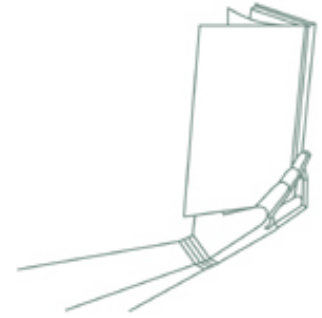
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- Ideas on how to encourage faculty to contribute their materials?
  - ‘peer-reviewed’ publication?
  - Usage statistics
    - i.e. materials are being used in x number of institutions

# Round-table Discussion

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- What might be the biggest hindrances for faculty to submit?
  - Time
  - Lack of reward
  - Feelings of 'propriety'