

# Japanese Olympiad in Informatics (JOI)

— Issues and Solutions —

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# JOI Update (1)

- Restarted our activities in 2005
  - Japanese government support
- Rejoined IOI in 2006

# JOI Update (2)

## IOI Contestants selection procedure in Japan

Dec **JOI 1<sup>st</sup> round** Online, 6 tasks, 3 hours

Feb **JOI 2<sup>nd</sup> round** On-site, 5 tasks, 4 hours, 50 students

Mar **Training camp** 7 days, 15 students

(including the final selection of IOI contestants)

Apr ~ Aug **Correspondence Training Course**

May **APIO (Asia-Pacific Informatics Olympiad)**

Aug **IOI**

# JOI Update (3)



## Participants and IOI Results

JOI	1 <sup>st</sup> Round	2 <sup>nd</sup> Round	Training Camp	IOI
2005/2006	80	33	8	G, G, B
2006/2007	150	36	13	G, S, B
2007/2008	334	49	16	? ? ? ?

# JOI Update (4)



## Our goals



To **improve** the **abilities** of the students  
gifted in Computer Science



To **promote** secondary school students'  
**understanding** in Computer Science



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# JOI Issues

- Opportunities for younger students and programming beginners
  - ← Lack of computer science curricula in schools
- Improving the training for IOI contestants
- Overcoming IOI type competition defects
  - A lack of consideration for the thinking process when grading solutions
  - A lack of open-ended problems for higher level students
  - Excessive focus on quickness of completing tasks and on coding skills



# JOI Issues

- Actions for younger students and programming beginners
  - ← Lack of computer science curricula in schools
- Improving the training for IOI contestants
- Overcoming IOI type task defects
  - A lack of consideration for the thinking process when grading solutions
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  - Excessive focus on quickness of completing tasks and on coding skills

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# Solutions offered (1)

## Lectures **not competition oriented**

Ex. Introduction to P vs NP problem

Introduction to Kolmogorov Complexity

Introduction to Functional Programming

## Summer camp **without competition**

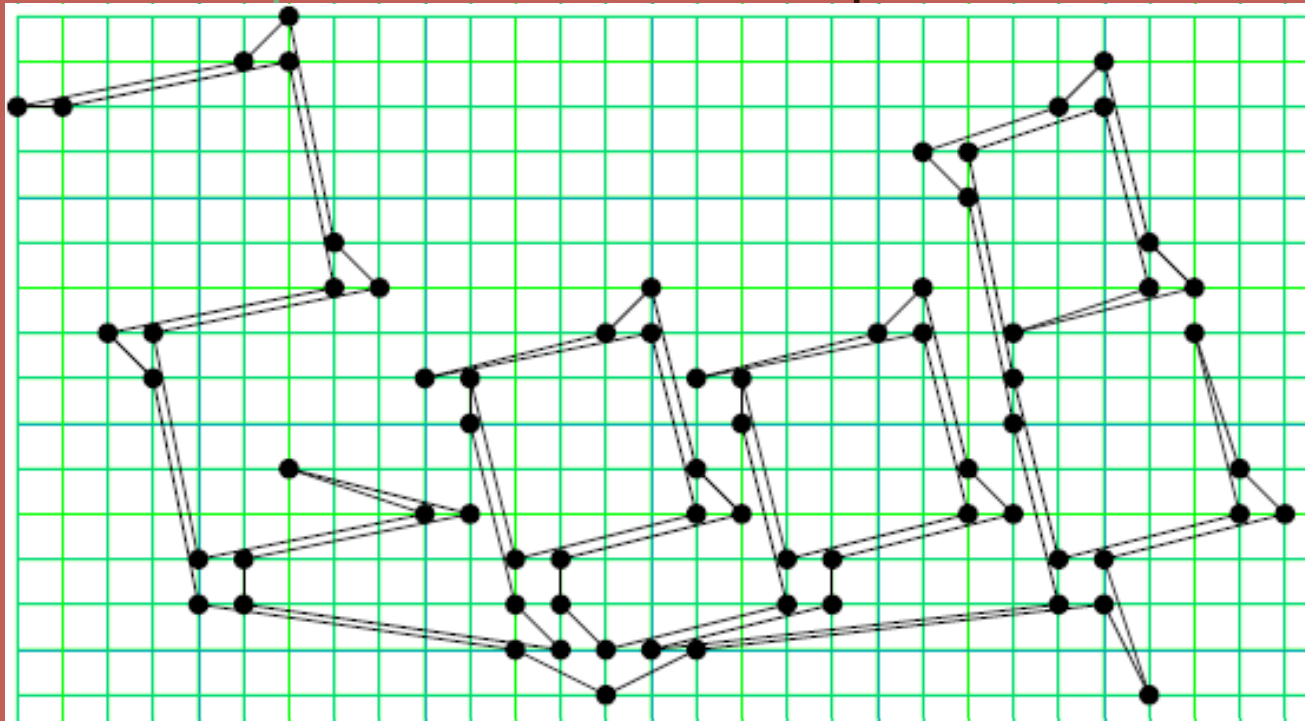
Ex. Seminar using undergraduate texts

# Solutions offered (2)

Coordination with other contests

Ex. SuperCon (Supercomputing Contest)

One open-ended task competition for a week



Find the minimum area simple polygon

# Solutions offered (3)



## Calendar of JOI

Nov A National high-school programming competition

Dec JOI 1<sup>st</sup> round

Feb JOI 2<sup>nd</sup> round

Mar Training camp

(including the final selection of IOI contestants)

Apr ~ Aug Correspondence Training Course

May APIO (Asia-Pacific Informatics Olympiad)

Jul SuperCon (Supercomputing Contest)

Aug IOI

Aug Summer Camp

Lectures **not**  
competition  
oriented

Group  
competition

**Open-ended task**  
**No rigid time limit**

No competition

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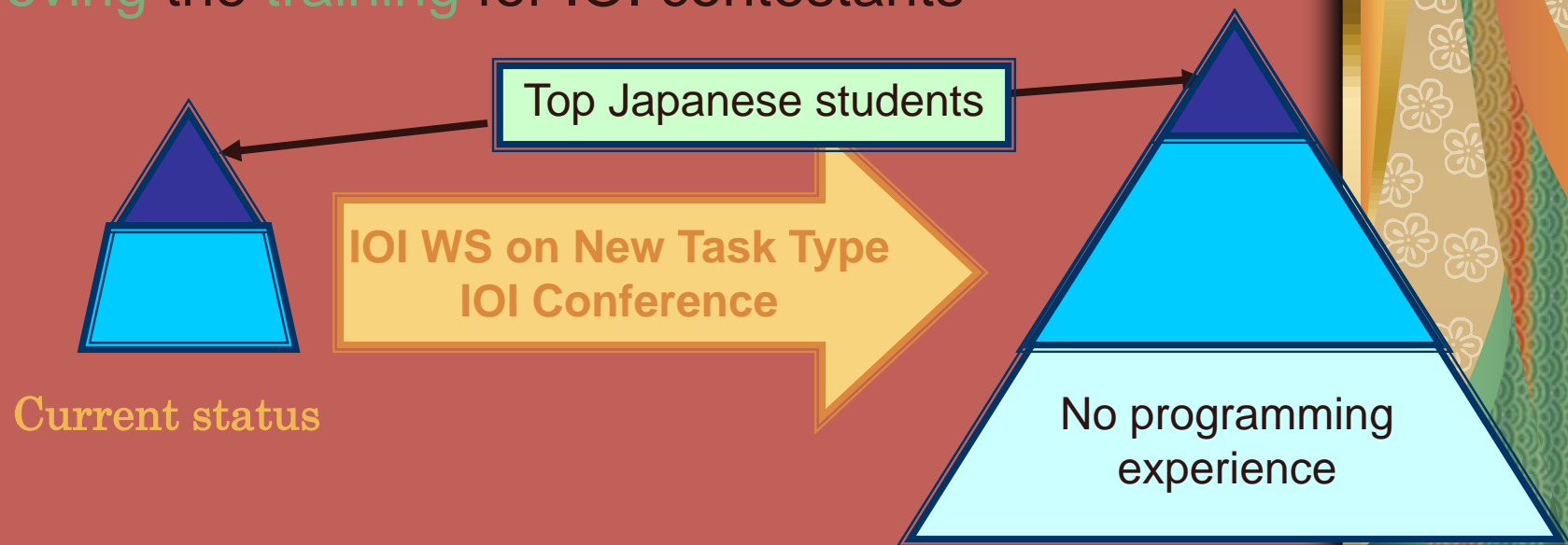
 Solutions offered

 What's next



# What's next

- Opportunities for younger students and programming beginners ← Lack of computer science curricula in schools
- Improving the training for IOI contestants



- Support from NTT Data Corp. and Fujitsu Ltd.  
Manpower and Facilities

Thank you for your attention !!

