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Autumn School for Audio and Music Researchers
Follow Up Survey

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1   Introduction

This survey was published online (using a Google Spreadsheet) on May 2011, and stayed online for a period of two months. An email was sent asking for the participation of the workshop's attendees. Although there was a "name" field, it was not mandatory. All the remaining questions were mandatory, except for the "extra comments" paragraph. 9 of the 21 workshop attendees participated on the survey.

2   Results

2.1   General

2.1.1   Age and academic position

The average age of the respondents (only 6 answers, since this was not a mandatory question) is 28.8 years old. In terms of academic position when attending the workshop (also not a mandatory question), 6 were PhD students, 2 research assistants and one respondent was a lecturer.

2.1.2   Reasons/Motivation to attend the workshop

This was an open format question, with the following answers:

"Audio software development has been, and will continue to be, a significant part of my research. I wanted skills to write better software that's more robust, more usable and more maintainable, and to help the students that I work with and supervise to do likewise."

"At the time I was writing software as part of my research, but I knew I wasn't using good coding practice and I wanted to make my programs cleaner and easier to maintain."

"The agenda;"

"I was hoping to learn more methodical ways to approach software engineering, ideally in order to feel better qualified to enter industry. I already felt fairly confident in my coding abilities (at least in comparison to the average academic researcher), but I felt there were tools and techniques that were commonly used in industry that I hadn't been exposed to. That wasn't what the workshop ended up helping me with, but I still enjoyed it and learned a lot."

"It seemed ideally related to my project which involves building musical testing software"

"I was interested in software development procedures that could help me develop better software for speech-related problems.

- *to learn more about collaborative programming work*

- *to learn more about working with other people's legacy code*

- *to learn more about sound/software*

- *to meet other people doing related work."*

"Promising opportunity to meet experts in my field and to enhance my programming skills."

"To learn about user interface development, control version system, python language."

2.1.3   Workshop Organization

When asked about the format of the workshop, in a 1 (corresponding to Disastrous) to 5 (Excellent), one respondent said it was OK, and 3 said it was very good. The majority (5 respondents) said it was good.

When asked about possible changes in a future workshop, the users were given the following options:

- *Fewer hours each day*

- *Workshop spreading over a longer time period*

- *More time to develop group exercises*

- *More "homework" tasks*

- *Other (open format question)*

Two respondents said they would prefer fewer hours each day, while one said he would prefer to have the workshop spreading over a longer time period. The rest of the responses were in open format:

"I think the format was ok"

"I certainly wouldn't implement any of the suggested changes. Certain aspects of the course I would have liked at a faster pace but I realise the course had to accommodate students from a range of backgrounds."

"Larger venue"

"More table space per person"

"Some kind of grouping of skill sets, so that we could go into more advanced topics"

"Rather than broadly covering a lot of topics, rather have several 2 or 3 days modules on specific topics."

2.2   Content

In the Content section the respondents were asked to rate, in a scale of 1 (Not Useful) to 3 (Very Useful) the main topics taught at the workshop. The following table shows the average and bin counts per topic:

	GUI	DB	Intro Python	Provenance/ Reproducibility	Testing/ Validation	Program Design
Average	1.89	2	2.22	2.67	2.67	2.67
N1	4	3	2	1	0	0
N2	1	3	3	1	3	3
N3	2	2	3	6	5	5

2.2.1   Auxiliary materials

The workshop attendees had several auxiliary materials that they could use. Some were introduced during the workshop, such as the Software Carpentry website, selected bibliography, etc. The Autumn School was also recorded in video; two months after its conclusion, a selection of videos covering most workshop topics were of released on the the SoundSoftware's YouTube channel (all the workshop's attendees were informed). In order to understand what kind of auxiliary materials were more useful two questions were asked: if (and, if so, which) auxiliary materials did the respondent use and/or recommended to colleagues/friends.

The results are the following:

	Used	Recommended
Bibliography	5	4
Software Carpentry website	5	0
Videos	1	3
None (of the above)	0	2

2.3   Final Considerations Question Group

The attendees were asked about the importance the workshop had to their research.

This group's first question asked the participants to rate, in a scale of 1 (Not Important) to 5 (Very Important), the

importance of the workshop to their research.

1 (Not Important)	0
2	0
3	2
4	5
5 (Very Important)	2

The students were also asked to give their opinion in what kind of programming background they thought this workshop should be aimed at. They were given 3 options and an extra "other" field. Respondents were given the opportunity to select more than one checkbox, so percentages may add up to more than 100%. These are the results:

	Answers
Researchers without programming skills	5
Researchers with some programming skills	9
Researchers with strong programming skills	2
None of the above	0

All agree that this workshop is well suited for researchers with some programming skills, and there is a general feeling that it is less interesting for people with strong programming skills. There was also an open answer, reproduced below:

"I believe the course has something to offer researchers of all programming abilities, but I would be wary of mixing students of different levels as then it's difficult/impossible to challenge everyone without leaving anyone behind";

The last three questions on this question group were open general questions.

2.3.1   What did you get out of this workshop?

"Lots of useful information on designing software. The information on version control was especially useful."

"Specifically, the introduction to SVN and test driven development have proved useful to me and I now wouldn't operate without them. In general I learned to write better, cleaner code more quickly than before. This lets me spend more time thinking about what to do and less getting it done."

"a very good methodology to write programs/scripts/etc."

"It's always good to go over the basics and my code is certainly stronger since the workshop. I am much better at writing testable code. While I don't do a lot of the scientific code that Greg talked about, the little that I do is documented better and more robust. Overall, my coding practice is more systematic and less ad hoc."

"it was a helpful introduction for me into programming, although i expect i could have got more from it if I already had a sound knowledge of programming. it was also good to work with others who knew much more than me, and the sharing of ideas was helpful. Strong relationships were also built, and no links with other people were inspiring and have continued to be helpful."

"I very much liked the case studies in software versioning and testing procedures."

"• Met some great people

• Discovered subversion which has proved very useful

• Learned some python"

"Knowledge of version control and program testing and validation."

"CVS, Python, a bit on SQL database"

2.3.2   What would you like to have got but didn't from this workshop?

"I would like to have covered the topics to greater depth. Also, I would of liked a bit on object oriented design as back then I had been using it very ineffectively. I've since learned more about it and it's a very powerful concept that could of improved my research."

"The google group has been a bit quiet;"

"I would have liked to get more into the modules for unit testing. I also would have liked to go over web protocols. Increasingly my work uses apis to call to external servers (Echo Nest and such), but my undergrad never went into web/networking. I think I'm teaching myself sufficiently, but some direct instruction on the subject would have been appreciated."

"Personally for me, some of the ideas were too in depth regarding programming, and so I could take from it the conceptual ideas rather than practical tips in some cases. I think this problem came down to the wide range of experience on the course, which if you have a lot of people in the future, it may be beneficial to split into more/less experienced - but then you wouldnt get the benefit of sharing of experiences. And even though some of it was too advanced for me, I am still very grateful that I was chosen to attend!"

"More relevance to actual audio/acoustics/speech/music researchers. This workshop could have easily been target at any researcher, and not audio/music ones."

" More techniques for working with audio files (any language!)

"Although programming concepts are the same for all programming languages, I would have preferred using a different language than python (e.g. Matlab and C++)."

"- Web application development (e.g. CherryPy);

- iOS/Android development;

- A survey of open Source frameworks dedicated to audio;

- openFrameworks (creative coding);

- How to develop one's own website to publicize and disseminate research, or an event website (e.g. Drupal)"

2.3.3   Any final comments?

"Really enjoyed it, I think this project is excellent."

"This was an excellent course which I wouldn't hesitate to recommend to any PhD student."

"I really hope more of these workshops take place, perhaps some targeted at particular audiences. I think a two-tier system of beginner vs intermediate/advanced programmers would have been more useful for everyone."

"It was a very enjoyable week, thanks. Very motivational speakers."

"A great workshop, thank you."

"Thanks! I am still enjoying the benefits of the workshop."

"Very good lecturer. Nice format (a week) and venue (SOAS)"