CRACKER
Cracking the Language Barrier

Deliverable 4.4

Report on QT Marathon 2016

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Copies of reports and other material can also be accessed via http://cracker-project.eu.

1 Aim

One of key goals of the CRACKER Coordination and Support Action is to foster education, training, research and research cross-fertilization as well as open-source tool development in the field of machine translation. This goal is attained through several CRACKER instruments, e.g. the organization of evaluation campaigns WMT, META-FORUM conference series, and the two QT Marathons run by CRACKER.

This report describes the 2016 QT Marathon, the second of Marathons organized with CRACKER support by the Institute of Formal and Applied Linguistics (ÚFAL), Charles University in Prague. The Marathon was held in Prague in September 12–17, 2016.

This report summarizes the activity at the Marathon and provides detailed opinions of Marathon participants collected in a survey 4 months after the Marathon using a web feedback form.

The full text of the feedback form is available as Attachment A followed by a detailed summary of the responses in Attachment B.

2 Introduction

The 2016 Marathon was the eleventh in the series, and the second of the two planned in the project CRACKER.

The marathons traditionally mix introductory lectures and labs for newcomers, advanced research talks and, most importantly, projects. The overall aim is to foster the development and use of open source MT software.

While the CRACKER proposal called the event "QT Marathon", we prefered to clearly indicate that this is the continuation of the well known MT Marathon series and both CRACKER Marathons were advertised as MT/QT Marathon or simply MT Marathon (MTM).

The target audience of MT Marathons are MT developers, researchers and users.

There are four main parts to the MT Marathon:

- collaborative hacking projects,

- the open source convention, i.e. presentation of papers on new open-source tools for MT,

- the "summer" school with lectures and labs given by leading researchers in the field,

- invited talks on current MT-related topics.

In 2016, neural networks caused a big shift of focus in MT research. The new and promising state of the art emerged surprisingly quickly and e.g. the concurrent EU research projects have not anticipated such a change. In 2015, neural MT (NMT) systems performed worse than standard statistical systems but some signs of their future success were apparent. The fact that "a new age is starting" was clear at WMT16, where neural systems dominated many language pairs.

We made use of the flexibility on MT Marathon programme setup and planned MT Marathon 2016 to become one of the early in-depth gatherings on neural MT.

The marathon website is available at `www.statmt.org/mtm16` including the programme with links to video recordings wherever available.

3 The QT/MT Marathon

3.1 Participation

The first call for participation in MTM15 was issued in June through standard mailing lists related to machine translation and also through Twitter and LinkedIn.

By the time the event started we had 93 registered participants (including invited speakers and lecturers and 3 on-site registrations). From the past we know that there can be also additional participants who arrive without registering. In the end, 13 of the registered people did not make it to Prague. In total, we had 80 attendees. The rate of "no-shows" was slightly higher than in the previous years but we still find it acceptable, given that registration is free.

The participation in 2016 was higher than in the previous year (73 registered, 67 actually attending). This was a success, since the MT Marathon in Prague competed again with the MT Marathon in the Americas[1] which took place in Notre Dame, Indiana, on May 16–21.

The feedback form was submitted by 54 attendees, a considerably better response rate ($\sim$80%) compared to about a half in the previous years. The results provide a finer detail on participants: 44% are somehow affiliated with industry (researchers, developers, managers or taking more than one of these roles), 37% were postgraduate students and 16% were researchers in academia, see Appendix B for the breakdown per role. This distribution matches well with our past experience.

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[1] `http://www.statmt.org/mtma16`

3.2 Projects

MTM open source projects are week-long hacking sessions, conducted in small groups formed on the first day, and aiming to implement or extend open source MT software, or to try out a new research idea. For those more experienced in the field, projects are the main business of the MTM.

We followed the past good experience and tried to collect project proposals in advance. This year, perhaps due to the announced focus on neural MT, the list of proposed projects in advance was shorter than usual. Only four projects were suggested in the online shared list. This list both in its editable version as well as a snapshot in PDF are available from the corresponding MTM16 web page.[2]

The actual project groups were formed on Monday, after each proposer presented his or her project. What again worked particularly well, was to use the blackboard where project leaders indicated where they are waiting for prospective team members and everybody marked with a simple tick their interest in the various projects. This allowed project leaders to see if their team is likely to get sufficiently big, and perhaps also contributed to some "load balancing" since everybody saw which projects are going to be crowded.

There were only 4 projects announced on the first day of the Marathon, which is much lower than e.g. the 18 proposals last year. On the other hand, *all* the four projects made it up to the last day, delivering a brief summary on Saturday. In the previous years, often less than two thirds of the projects were attended for the whole week.

The slides for all project sessions (boaster session on Monday, interim reports on Wednesday, final reports on Friday) are available in MTM16 SVN repository and linked from the programme web page[3]. Here are project titles from the final presentations:

- A Neural Network Toolkit for MT (7 members)

- Domain specific translations: Moses vs. NMT (7 members)

- Implementing Multi-Objective Training and Factored Input in Neural Monkey (6 members)

- Non-Perplexity Neural MT Objectives (6 members)

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[2]http://ufal.mff.cuni.cz/mtm16/projects.html
[3]http://ufal.mff.cuni.cz/mtm16/programme.html

The responses from project leaders indicate that this year, most of the projects are still alive and sometimes very active now, five months after the Marathon:

A Neural Network Toolkit for MT (Marian). The code is actively being developed on Github[4] with public announcement expected in a few weeks. Marian now has a working C++ reimplementation of Nematus and the the interface and merge with amuNMT is under development. An EACL demo-paper is likely to be coming out of this project.

Non-Perplexity Neural MT Objectives. The project was implemented in Nematus and with some debugging and hyperparameter tuning after the end of the Marathon, the authors got successful first results. A paper publication is planned.

Domain specific translations: Moses vs. NMT. The authors continued with the experiments and applied the method for their IWSLT 2016 submission, adapting existing NMT models to the TED corpus. The improvement of the adaptation method as taught in the MTM lab by Rico Sennrich in this particular experiment was +3.6 BLEU for English-to-Czech translation.

Multi-Objective Training and Factored Input in Neural Monkey. The Neural Monkey library for sequence to sequence machine translation had two major features added: multi-objective decoding ("one monkey, many bananass"), where the objective function is computed from the outputs of multiple decoders over a shared encoder or encoders, and factored input ("many monkeys, one banana"), where multiple encoders are encoding different "views" of the input sequence. As opposed to factored input, where all these views, such as surface forms, morphological tags, or lemmas, have to be given for each input sentence, multi-objective decoding does not require the presence of all outputs for each input sentence: training alternates among decoders, over encoder(s) shared among all decoders. The purpose of multiple objectives is to use auxilliary outputs, such as part-of-speech tags, to influence the intermediate representations within the network, so that they incorporate additional information that is hard to glean strictly from parallel data and thus generalize better. Both features were tested on the CzEng dataset, and while factored input gave promising preliminary results, multi-objective decoding behaved unstably during training and warrants further work.

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[4]https://github.com/emjotde/marian

Neural Monkey itself is being actively developed[5] and it will be used in the WMT17 shared task on Neural MT Training.[6]

Based on the feedback form, both experienced researchers and newcomers recognize that projects are the cornerstone of MT Marathon. Following the advice of participants in 2013, we kept the amount of extra activities low, so that people would not be as much distracted from the projects. The percentage of people who did not attend projects but wanted to however remains similar to previous years: 22% in 2013, 19% in 2015 and 24% in 2016. The percentage of participants fully involved in projects (including those who would have wanted to spend even more time on projects) was also comparable: 47% in 2013, 44% in 2015 and 39%. The small loss can be easily attributed to people trying keep up with the lectures on the fairly novel topic.

The majority of people (83%) think that projects should be kept in their form. The only specific request for a change was however this: "It would be good to plan for preparing the projects some time ahead, to get the most out of them during the marathon." We believe that the online document and our announcements suffice for this purpose, so perhaps a little more pressure should be put on prospective project organizers.

3.3 Open Source Convention: Papers

The call for papers asked for submissions describing new open source MT software, and extensions to existing tools. This call gives MT researchers and developers the opportunity to share information about implementation, and to publicise their software – an opportunity which is generally not available at typical research conferences. The accepted papers are published in the Prague Bulletin for Mathematical Linguistics (PBML)[7].

We received 9 submissions for MTM16, one of them withdrawn later in the process by the author. After two independent reviews, 8 were accepted for publication in PBML and presentation at the MTM. Of these, 5 were selected for publication in Volume 106, printed and made available at MTM16. The remaining papers are scheduled for Volume 106 due April 2017. This division is mainly driven by physical constraints of the printed version of PBML but it allows us to provide more space to the articles that deserve it, at the cost of a later publication date.

The accepted papers were:

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[5]https://github.com/ufal/neuralmonkey
[6]http://www.statmt.org/wmt17/nmt-training-task/
[7]http://ufal.mff.cuni.cz/pbml

- *Česílko Goes Open-Source* by Jernej Vičič, Vladislav Kuboň, and Petr Homola

- *CSTLM: A Practical Infinite Order Language Model using Compressed Suffix Trees* by Matthias Petri, and Trevor Cohn

- *FaDA: Fast Document Aligner using Word Embedding* by Pintu Lohar, Debasis Ganguly, Haithem Afli, Andy Way, and Gareth J.F. Jones

- *Language Adaptation for Extending Post-Editing Estimates for Closely Related Languages* by Miguel Rios, and Serge Sharoff

- *Neural Monkey: An Open-source Tool for Sequence Learning* by Jindřich Helcl, and Jindřich Libovický

- *Otedama: Fast Rule-Based Pre-Ordering for Machine Translation* by Julian Hitschler, Laura Jehl, Sariya Karimova, Mayumi Ohta, Benjamin Körner, and Stefan Riezler

- *Qualitative: Python Quality Estimation supporting server mode and Hybrid MT* by Eleftherios Avramidis

- *ruLearn: An Open-Source Toolkit for the Automatic Inference of Shallow-Transfer Rules for Machine Translation* by Víctor M. Sánchez-Cartagena, Juan Antonio Pérez-Ortiz, and Felipe Sánchez-Martínez

We followed the practice of presenting all the contributions as posters at the Marathon, with a boaster session giving 3–5 minutes to each presenter.

The results of the feedback form confirm that poster presentations are a good part of the marathon (only 16.7% deliberately skipped posters and 72% vote to keep the session as it is now). The detailed comments suggested that posters should be related to the "topic" of MT Marathon more, i.e. neural MT in 2016. The fact that MTM16 had this clear topic was rather an exception in Marathon history and we also would not want to constrain paper submission to a narrow topic. The main benefit of marathon papers in comparison with standard research papers is the focus on the technical aspects of a released tool.

3.4   Invited Talks

This year we had 5 invited talks:

- *Neural Networks in MT: Past, Present and Future*, Holger Schwenk (Facebook AI Research)

- *Directed MT Research for Commercial Settings*, Adrià de Gispert (SDL Research and Cambridge University)

- *Future Directions in Neural Machine Translation*, Orhan Firat, Kyunghyun Cho (Middle East Technical University, New York University)

- *Presentation on the SUMMA project and the BBC's ALTO video translation tool*, Susanne Weber (BBC News Labs)

- *Recent Trends in Computer-Assisted Translation*, Philipp Koehn (Johns Hopkins University)

Facebook and SDL sponsored the travel costs of their employees, Philipp Koehn received support from his home institution and CRACKER covered Susanne Weber and Kyunghyun Cho. Unfortunately, Kyunghyun Cho got seriously ill shortly before Marathon and his state did not allow him to travel. Kyunghyun's talk was given remotely by his colleague and co-author of many of the presented works, Orhan Firat. We ran the talk with Adobe Connect, provided by Cesnet, the operator of Czech academic network. The presentation was surprisingly smooth and allowed us to provide a recording for this talk as well.

The videorecordings from the talks are available on MT Marathon 2016 web page.

In our survey, only one of the respondents said they deliberately skipped the talks. On the contrary, 63% of the respondents fully followed the talks and another 19% would have liked more of talks of this type.

We believe that inspiring talks are an essential part of the Marathon and 89% of respondents indeed likes to keep them as they are. Detailed comments from a few respondents show also mixed opinions:

- I really enjoyed the talks from industry professionals, particularly the BBC. Great to see this type of work applied to real world situations.

- I really don't know the benefit of keynote talk.

- Two keynotes would be enough. I would rather prefer lectures on methods than someone bragging about what they have done. Do not get me wrong, it is great to hear from those who achieved a lot, but that does not contribute to understanding the technologies better...

- I really don't know the benefit of keynote talk.

- One at most.

Since time is scarce at MT Marathon, it seems that with good project proposals and/or good lectures, there is room for some reduction in the number of keynote talks without much harm.

3.5 "Summer" School

The summer school is a series of lectures with accompanying labs designed to provide a full introduction to statistical MT.

3.5.1 Lectures

The following is a list of the lectures in the summer school this year:

- *MT Evaluation and Significance Testing* , Lucia Specia (USFD), Yvette Graham (DCU)

- *Introduction to Neural Networks: Linear Regression, Logistic Regression*, Marcin Junczys-Dowmunt (AMU)

- *Training Neural Networks, Backpropagation* , Marcin Junczys-Dowmunt (AMU)

- *N-Gram Language Modelling, including Feed-Forward NNs* , Kenneth Heafield (UEDIN)

- *Word Embeddings, Introduction to Recurrent NNs* , David Vilar Torres (Nuance)

- *Advanced Recurrent NNs (Backpropagation in Time, LSTM, ...)* , David Vilar Torres (Nuance)

- *Neural Machine Translation* , Rico Sennrich (UEDIN)

- *Phrase-Based MT Summary* , Ulrich Germann (UEDIN)

This year, CRACKER supported travel expenses of Lucia Specia, Marcin Junczys-Dowmunt, and Rico Sennrich.

Based on the feedback form, lectures were well attended, 67% of respondents paid full attention to them (and some of those would have even like more lectures). This is very comparable to 63% observed last year, so the focus on neural MT has not affected the overall balance that much.

The comments indicate that people value lectures for clarifying things even if they know the content before. More space might be desirable for fundamental things like language models.

Overall, 93% of respondents said they like the lectures as they are now, although obviously, detailed opinions vary:

- Again, the introductory lectures on NMT were not quite so introductory. I believe they should have been more accessible, not just for those already familiar with NMT.

- Everything was good. Thanks for covering all the necessary material for performing labs and projects.

- I felt the basic flow for teaching Neural Networks was missing. Lectures from different topics were just felt like adjusted in different slots. I was hoping that flow of the lectures would have gone something like, what is neural network? why do we need it? what are the current advances in neural network? what is the difference between feed forward and recursive neural nets etc. It would have been nice if the level of lectures is specified in advance. Just from the titles of lectures it was not clear what should we expect. You could also distribute lectures in basic, medium or advance category. Anyone interested in particular skill level may attend lectures of their own choice.

The third cited comment points out an issue that we have specifically tried to address in programme preparations. Our discussions with lecturers suggested that there are several possible paths along which the topic can be approached and the resulting MTM programme was a good blend of these opinions; it is not much surprising to us that the participant found yet another way how to organize topics. The idea of separating basic, intermediate and advanced levels of lectures is appealing, but we did not introduce it in the past because the number of lectures is actually not that big compared to e.g. ESSLLI, the European Summer School of Linguistic, Logic and Information.

3.5.2 Labs

This year we had four labs, no repetition from the past years and all but one geared directly towards the new topic:

- *Introduction to Theano source)* , Marcin Junczys-Dowmunt (AMU)

- *Amazon EC2, SGE and GPU Warm-up; Wiki: EC2, ÚFAL cluster*, Tomáš Musil (CUNI)

- *Character-Level LMs in Practice files)* , David Vilar Torres (Nuance)

- *Nematus* , Rico Sennrich (UEDIN)

- *Modern MT (Moses Wrapped; tutorial setup)* , Ulrich Germann (UEDIN)

The attendance to labs was much higher this year: 26% fully involved or would even have liked more, compared to just 2 persons last year. Another 43% were involved intermittently (compared to 67% last year).

The detailed comments in Appendix B are inspiring and mention the following issues:

- labs are too short to get to the important content

- labs sometimes just consist of copy-pasting and waiting for magic; this is related to the limited time for labs in general

- too much time is lost in configuration (but arguably, this can be a desired part of the lab content)

- Linux experience is needed but not clearly announced; two levels of labs could be considered

It is not clear how to fully resolve these issues, except simply allocating more time for lab sessions. In general, the current structure is not terribly wrong. As documented in the feedback results, 76% suggest to keep the labs as they are.

3.5.3 Written Exam

Since we somewhat shifted the main focus of this from projects to lectures towards the basics and advanced aspects of neural MT, we decided to add one more fun item: a written exam on Saturday morning. The exam was prepared and run by Milan Straka (CUNI), and corrected in pairs at the end of the session.

We tried to make it clear that the exam is meant to serve several purposes: pure entertainment, a summary of the most critical concepts that participants should remember from the marathon, but also as the last possible slot for those willing to finish their project presentation. We did not record the exact number of participants but between 20 and 30 people took part.

The feedback from the participants suggests mixed feelings about the exams. The majority of the respondents did not make any statement about the exam and the supportive and dismissive voices were on par. The explicit comments on the exam were mainly constructive:

- The written exam was a good idea, but there was not enough time for it. Not enough time for writing the exam and no time for explaining the answers. Milan answered them anyway (after official end) and it was one of the best parts of the Marathon.

- I liked the final exam, but I would suggest a small change: Instead of doing it under time-pressure in the lecture-hall, what about handing it out as "homework", so that people can really dive in and go through the materials at their pace. Then there could be a joint review session the next day where the solution is presented and discussed. This has the advantage that it would both benefit the people who did the exam/homework themselves AND the ones who didn't prepare solutions could simply have a review session where take home messages are presented and discussed.

- Final exam was far too difficult, therefore was almost a loss of time for me.

In sum, we suggest to seriously consider exams, homeworks or at least some summaries for future marathons.

3.5.4 Feedback on the Neural Shift

We specifically asked people to evaluate the focus on neural MT that we introduced this year. We can summarize:

- 74% were content with the new focus.

- People would have liked more of lectures (33%), pencil-and-paper exercises (19%) and coding labs (17%) for NMT.

- Only 5 (10%) respondents felt non-neural MT was not sufficiently covered.

Table 1 summarizes the experience of respondents with neural MT before MT Marathon, immediately after it and after four more months. We see that MT Marathon has allowed most people to "move one level higher". We cannot claim that they would not be delving into NMT anyway, but we are very happy to see that four months after MT Marathon, 72% of respondents are getting ready to or already doing research in NMT, compared to just 30% at that level before the Marathon.

| | Before | After MT Marathon | |
		Immediately	4 Months
Not interested in NMT	0	0	0
Didn't know anything about NMT	11.1	1.9	1.9
Knew vaguely the pros and cons of NMT	35.2	5.6	5.6
Knew the basic principles / ran basic experiments	24.1	48.1	20.4
Getting ready to work on my own research ideas	11.1	24.1	35.2
Doing research in NMT	18.5	20.4	37.0

Table 1: Uptake of NMT among MT Marathon participants [%].

4   Assessment

Based on the positive feedback from the participants, we are confident that MT Marathon 2016 was a successful event. The attendance of the whole event and its parts was very good and the programme was broad enough to provide something for everyone at all levels.

As said last year, the format of the event has been more or less stable throughout the years and this makes the tradition of MT Marathons stronger. Participants know what to expect and word of mouth spreads awareness about the event among students and also users from the industry. The mix of introductory lectures and labs with advanced keynote talks and research papers, and most importantly the group projects make the programme attractive both for newcomers as well as regular attenders. The stimulating environment provably allows new students to jump-start their research career in machine translation or natural language processing in general.

We are also content with the outcome of the topic switch to neural MT. As the feedback suggested, MT Marathon indeed allowed many participants to jump into this field and many have continued the course afterwards. We cannot make a clear recommendation on the next MT Marathon content, among other things, neural MT is moving very fast as a whole. We conclude with one of the comments we received that well summarizes also our opinion:

- It was a great, forward-looking call to go fully neural for the MT marathon. I wonder what the role of studying "classical" statistical MT approaches in the future will be, specifically for MT marathon. It's not that it's irrelevant, but it truly does seem like the wrong thing to be doing from the research angle, even if the transition is not fully justified in all production contexts. There is a lot to think about in this vein.

A   Feedback Form

The following pages contain the printed version of an online feedback form sent to all participants of MT Marathon 2015.

Edit this form

MT Marathon 2016 Feedback Form

* Required

Where do you come from? *
What best describes your current occupation?

- [ ] undergrad (studying for Master)
- [ ] postgrad (studying for Ph.D.)
- [ ] postdoc (Ph.D. finished, young researcher)
- [ ] researcher in a research institute or university
- [ ] (small) academic research group leader
- [ ] translator in a company / freelancer
- [ ] researcher in a company
- [ ] developer in a company
- [ ] manager in a company

The Neural Twist

Your relation to Neural MT *
This year, we reworked the programme to reflect the advances in Neural Machine Translation. What impact had MT Marathon in this respect on you?

	Not interested in NMT	Didn't know anything about NMT	Knew vaguely the pros and cons of NMT	Knew the basic principles / ran basic experiments	Getting ready to work on my own research ideas	Doing research in NMT
Before Marathon	○	○	○	○	○	○
Right after Marathon	○	○	○	○	○	○
Now, 4 months after Marathon	○	○	○	○	○	○

Comments on the NMT coverage at the Marathon *

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Which of these short statements match your impressions? Use the next question to add more statements.

☐ Great that you covered Neural MT this deep.

☐ I would have liked to have more lectures on NMT.

☐ I would have liked to have more pencil-and-paper exercises.

☐ I would have liked to have more coding labs.

☐ Non-neural MT did not receive proper attention.

☐ I knew NMT before but still learned a lot.

☐ I was disappointed by not learning much new.

☐ I liked the final written exam.

☐ I think the final written exam was a waste of time.

☐ I knew NMT before and decided not follow this part of Marathon.

☐ I decided not to delve into NMT, I didn't follow this part of Marathon.

Anything further on Neural MT?

Please provide suggestions or comments on the balance of NMT/non-NMT, they way NMT was covered...

How do you feel about the following toolkits/environments after the MT Marathon?

	Knew well enough before	Confident I can use it on my own	Not afraid, but will seek assistance	Still afraid	Didn't use this during this Marathon
Moses	○	○	○	○	○
Nematus	○	○	○	○	○
Neural Monkey	○	○	○	○	○
Theano	○	○	○	○	○
TensorFlow	○	○	○	○	○
Amazon EC2	○	○	○	○	○

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	Knew well enough before	Confident I can use it on my own	Not afraid, but will seek assistance	Still afraid	Didn't use this during this Marathon
cdec	○	○	○	○	○
Joshua	○	○	○	○	○
TectoMT/Treex	○	○	○	○	○

Any other tools or useful toolkits you learned about?

Provide names or even links to toolkits that you did not know before at all or were not familiar with them and this MT Marathon allowed you to start using them.

General Questions on Attendance

How much did you attend to various regular MTM tracks? *

(sitting in the lecture theatre but working on a project counts as project work ;-)

	Did not attend (Did not want to)	Did not attend (But wanted to)	Intermittently	Fully involved	Fully invoIved and would have liked more
Introductory morning lectures	○	○	○	○	○
Keynote talks	○	○	○	○	○
Labs	○	○	○	○	○
Poster and demo presentations	○	○	○	○	○
Work on projects	○	○	○	○	○
Following other project reports	○	○	○	○	○

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	Did not attend (Did not want to)	Did not attend (But wanted to)	Intermittently	Fully involved	Fully involved and would have liked more
General networking (meeting people)	○	○	○	○	○

Is there anything you would suggest changing in next Marathons? *

	Keep	Change (details below)	Drop altogether	I don't care
Introductory lectures	○	○	○	○
Keynote talks	○	○	○	○
Labs	○	○	○	○
Papers on tools (presented as posters and demos this year)	○	○	○	○
Projects	○	○	○	○
Project presentations	○	○	○	○

Detailed comments

If you have any comments on each of the activities, please let us know. What did you like or not like? How could they be improved? (This is the place to propose any changes.)

Introductory lectures

Keynote talks

> [empty text box]

Labs

> [empty text box]

Poster presentations

> [empty text box]

Projects

> [empty text box]

Project presentations

> [empty text box]

Project follow-up reports
Some Marathon projects will run longer. We have no control over what is going to

happen with them, but still: is there anything specific we should try to make you benefit more from such on-going projects?

Organization

Please tell us more on your experience with the organization of the Marathon.

Any comments on the organization or registration process?

Was the information before Marathon sufficient?

We tried to provide you with all relevant information on the web page just in time to help you in all decisions and steps. Was there anything missing? Would you like to have received more details, at different times or in a different manner?

Social aspect

While we provide tips what to do in your spare time, we don't organize social events much. This year, we at least had the beer garden evening. Would you have any other propositions?

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Anything to add?

Anything you want to add? Any other comments?

Any other impact or impression MT Marathon 2016 has made on you?

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B   Automatic Summary of Responses

The following pages contain the printed version of a detailed automatic summary of all the responses we collected using our online form.
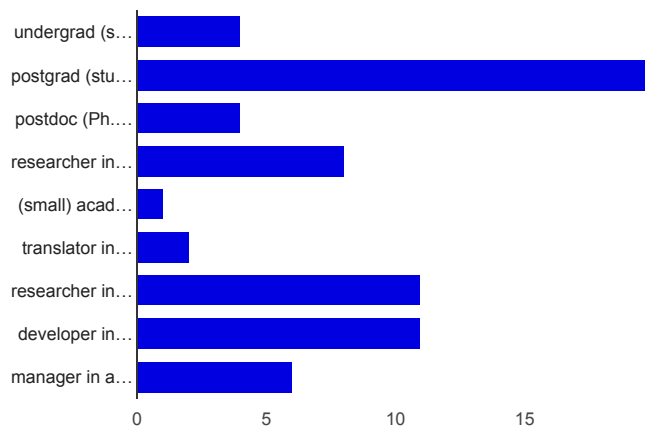
Edit this form

54 responses

View all responses   Publish analytics

Summary

Where do you come from?

undergrad (studying for Master)	**4**	7.4%
postgrad (studying for Ph.D.)	**20**	37%
postdoc (Ph.D. finished, young researcher)	**4**	7.4%
researcher in a research institute or university	**8**	14.8%
(small) academic research group leader	**1**	1.9%
translator in a company / freelancer	**2**	3.7%
researcher in a company	**11**	20.4%
developer in a company	**11**	20.4%
manager in a company	**6**	11.1%

The Neural Twist

Before Marathon [Your relation to Neural MT]

22

Not interested in NMT	**0**	0%
Didn't know anything about NMT	**6**	11.1%
Knew vaguely the pros and cons of NMT	**19**	35.2%
Knew the basic principles / ran basic experiments	**13**	24.1%
Getting ready to work on my own research ideas	**6**	11.1%
Doing research in NMT	**10**	18.5%

Right after Marathon [Your relation to Neural MT]
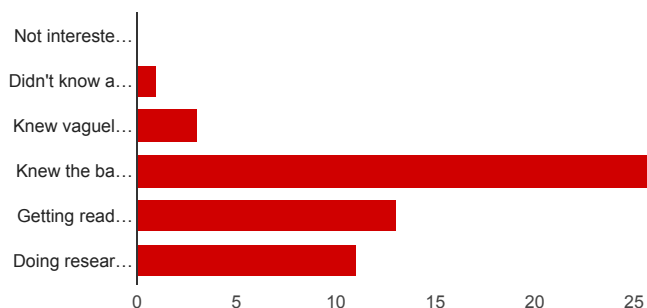
Not interested in NMT	**0**	0%
Didn't know anything about NMT	**1**	1.9%
Knew vaguely the pros and cons of NMT	**3**	5.6%
Knew the basic principles / ran basic experiments	**26**	48.1%
Getting ready to work on my own research ideas	**13**	24.1%
Doing research in NMT	**11**	20.4%

Now, 4 months after Marathon [Your relation to Neural MT]
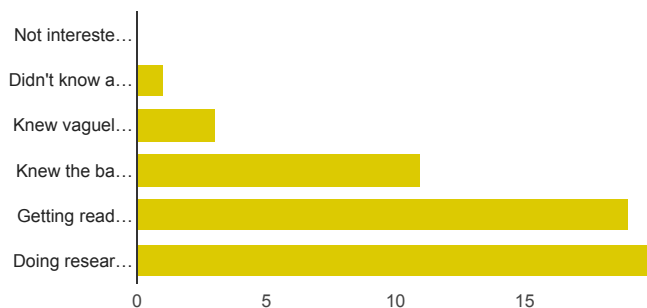
Not interested in NMT	**0**	0%

23

Didn't know anything about NMT	**1**	1.9%
Knew vaguely the pros and cons of NMT	**3**	5.6%
Knew the basic principles / ran basic experiments	**11**	20.4%
Getting ready to work on my own research ideas	**19**	35.2%
Doing research in NMT	**20**	37%

Comments on the NMT coverage at the Marathon
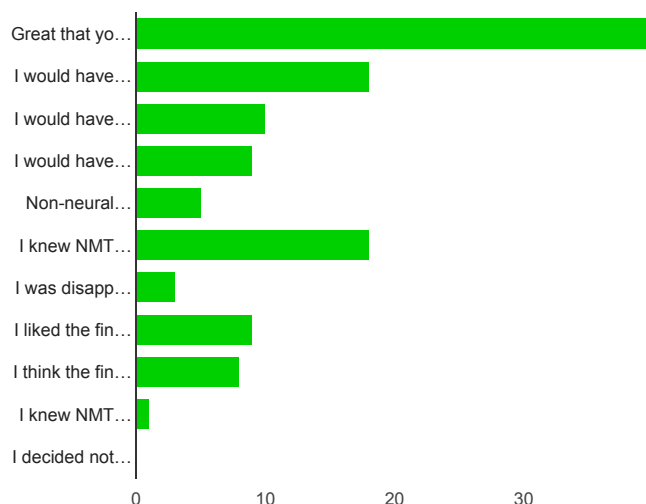
Great that you covered Neural MT this deep.	**40**	74.1%
I would have liked to have more lectures on NMT.	**18**	33.3%
I would have liked to have more pencil-and-paper exercises.	**10**	18.5%
I would have liked to have more coding labs.	**9**	16.7%
Non-neural MT did not receive proper attention.	**5**	9.3%
I knew NMT before but still learned a lot.	**18**	33.3%
I was disappointed by not learning much new.	**3**	5.6%
I liked the final written exam.	**9**	16.7%
I think the final written exam was a waste of time.	**8**	14.8%
I knew NMT before and decided not follow this part of Marathon.	**1**	1.9%
I decided not to delve into NMT, I didn't follow this part of Marathon.	**0**	0%

Anything further on Neural MT?

Setting up labs was too complicated and didn't work for me.

Not specific to NMT, but I liked the deep focus on one specific topic.

I attended DL4MT in 2015 and found that a lot more in-depth

While NMT obviously improves the fluency of MT in many scenarios, the question of better
controlling the adequacy (completeness, preservation of meaning) will play an important role.

24

This topic should be covered in future rounds of MTM (and other events).

The written exam was a good idea, but there was not enough time for it. Not enough time for writing the exam and no time for explaining the answers. Milan answered them anyway (after official end) and it was one of the best parts of the Marathon.

NMT is becoming the state-of-the-art, so it is highest time to concentrate on that.

I liked the final exam, but I would suggest a small change: Instead of doing it under time-pressure in the lecture-hall, what about handing it out as "homework", so that people can really dive in and go through the materials at their pace. Then there could be a joint review session the next day where the solution is presented and discussed. This has the advantage that it would both benefit the people who did the exam/homework themselves AND the ones who didn't prepare solutions could simply have a review session where take home messages are presented and discussed.

It was a great, forward-looking call to go fully neural for the MT marathon. I wonder what the role of studying "classical" statistical MT approaches in the future will be, specifically for MT marathon. It's not that it's irrelevant, but it truly does seem like the wrong thing to be doing from the research angle, even if the transition is not fully justified in all production contexts. There is a lot to think about in this vein. Rico's lectures and labs were excellent. I think a lot of the success of the Marathon came about from him posting all of his models and code, detailed instructions on getting environments setup (including alternate paths, e.g., docker and virtualenv), and walking people through it. There are so many ways to share code and models these days but sadly it is rare that people take advantage of it to the extent that Rico has. (I also wonder perhaps if part of his success has to do with the fact that neural models are in fact easier to use and train, in some respects...)

I didn't think NMT was explained very well. Especially the day where the speaker just went through an entire equation on a sheet of paper. I felt as though his objective was to display his own knowledge, rather than help the audience understand NMT.

I'm on the "buyer" side. I'd love to use NMT-DL results in MT

it was great. there was the full range of coverage on the topic: deep technical, introductions, real world impact, comparisons. I only wish that I had the skill to allow me to participate deeper in the real coding exercises that were shown at the end.

Final exam was far too difficult, therefore was almost a loss of time for me In almost all the labs, it was too difficult to get a proper configuration, so we had to spend 75% of the time to get a system ready to begin, then we had no time to concentrate properly on the lab itself

NMT was the main thema, so it is OK to give it enough space. Great job!

I already knew about NMT, but it was still good to see the information laid out in a well thought out and structured way and see the emphasis given by the lecturers.

I read in YahooGroups and on ProZ.com some artiles on intergration Google NMT into CAT and comparation default Google MT vs. NMT. The autor was mostly Samuel Murray, translator EN-AF. Africaan and Czech was not supported by Google Translate in December 2016.

I really liked Rico NMT lecture but I wish it was divided into the first encode-decoder principle, attention mechanism, bi-directional RNNs and then the by-product of it (NMT). It would have been more easy to grasp everything with a day break in the middle.

Moses [How do you feel about the following toolkits/environments after the MT Marathon?]
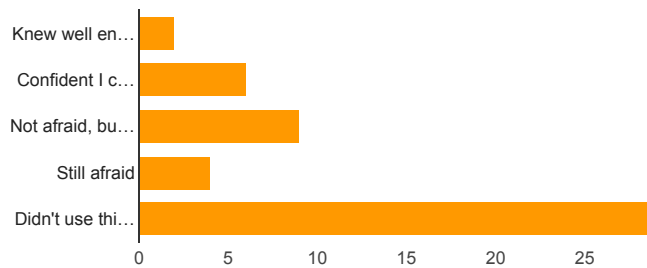
25

Knew well enough before	**26**	52%
Confident I can use it on my own	**10**	20%
Not afraid, but will seek assistance	**4**	8%
Still afraid	**0**	0%
Didn't use this during this Marathon	**10**	20%

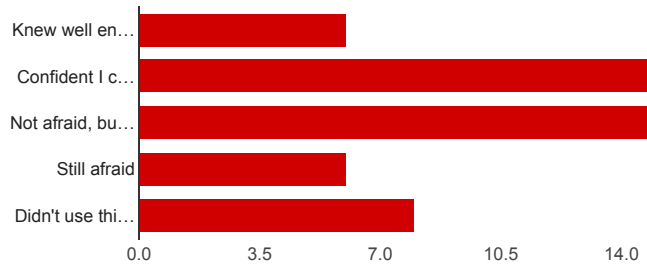### Nematus [How do you feel about the following toolkits/environments after the MT Marathon?]
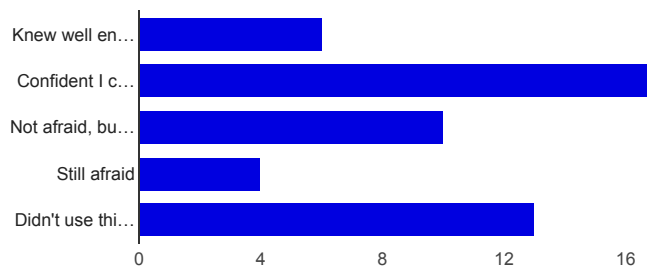
Knew well enough before	**6**	12%
Confident I can use it on my own	**17**	34%
Not afraid, but will seek assistance	**10**	20%
Still afraid	**4**	8%
Didn't use this during this Marathon	**13**	26%

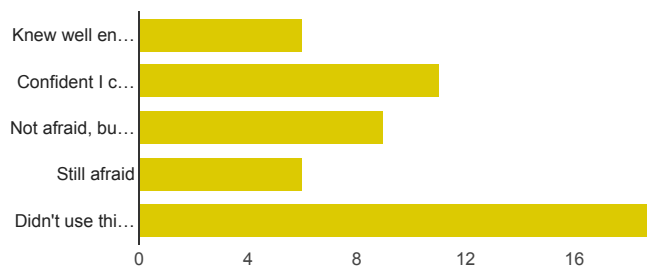### Neural Monkey [How do you feel about the following toolkits/environments after the MT Marathon?]

26

Knew well enough before	2	4%
Confident I can use it on my own	6	12%
Not afraid, but will seek assistance	9	18%
Still afraid	4	8%
Didn't use this during this Marathon	29	58%

Theano [How do you feel about the following toolkits/environments after the MT Marathon?]

Knew well enough before	6	12%
Confident I can use it on my own	15	30%
Not afraid, but will seek assistance	15	30%
Still afraid	6	12%
Didn't use this during this Marathon	8	16%

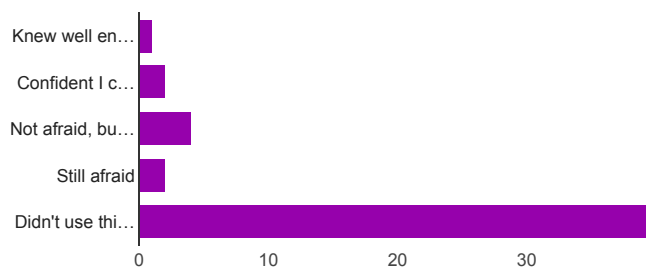**TensorFlow [How do you feel about the following toolkits/environments after the MT Marathon?]**

Knew well enough before	6	11.8%
Confident I can use it on my own	11	21.6%
Not afraid, but will seek assistance	9	17.6%
Still afraid	6	11.8%
Didn't use this during this Marathon	19	37.3%

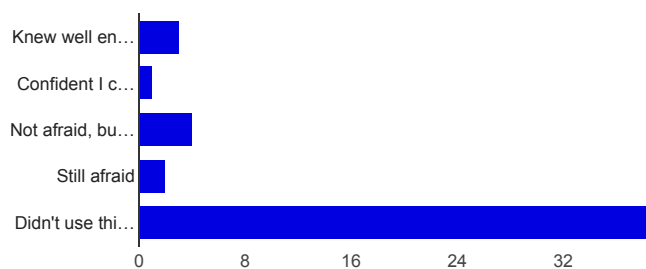**Amazon EC2 [How do you feel about the following toolkits/environments after the MT Marathon?]**

27

Knew well enough before	**9**	18%
Confident I can use it on my own	**9**	18%
Not afraid, but will seek assistance	**8**	16%
Still afraid	**6**	12%
Didn't use this during this Marathon	**18**	36%

**cdec [How do you feel about the following toolkits/environments after the MT Marathon?]**

Knew well enough before	**1**	2%
Confident I can use it on my own	**2**	4.1%
Not afraid, but will seek assistance	**4**	8.2%
Still afraid	**2**	4.1%
Didn't use this during this Marathon	**40**	81.6%

Joshua [How do you feel about the following toolkits/environments after the MT Marathon?]

28

Knew well enough before	**3**	6.1%
Confident I can use it on my own	**1**	2%
Not afraid, but will seek assistance	**4**	8.2%
Still afraid	**2**	4.1%
Didn't use this during this Marathon	**39**	79.6%

TectoMT/Treex [How do you feel about the following toolkits/environments after the MT Marathon?]
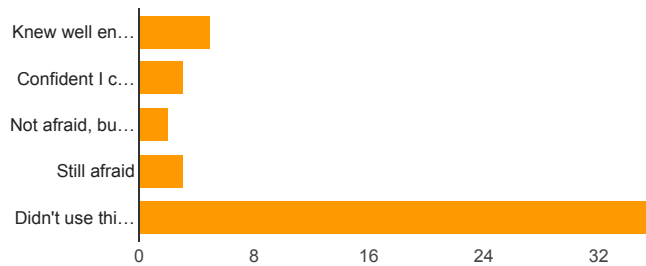
Knew well enough before	**5**	10.2%
Confident I can use it on my own	**3**	6.1%
Not afraid, but will seek assistance	**2**	4.1%
Still afraid	**3**	6.1%
Didn't use this during this Marathon	**36**	73.5%

Any other tools or useful toolkits you learned about?

AmuNMT

Marian AmuNMT

1) Fast aligner

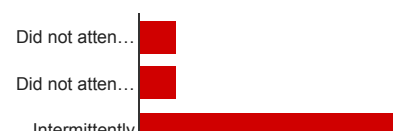in general all tools from the poster/demo session

Otedama

AmunMT

I had no time to study available stuff.

Fast aligner

General Questions on Attendance

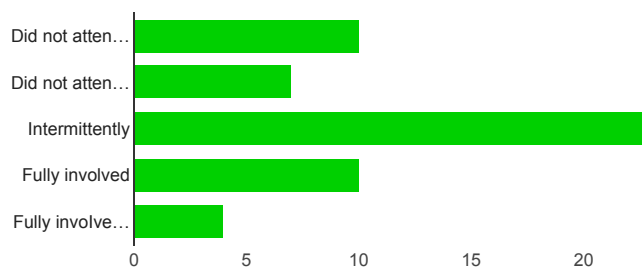### Introductory morning lectures [How much did you attend to various regular MTM tracks?]

29

Did not attend (Did not want to)	2	3.7%
Did not attend (But wanted to)	2	3.7%
Intermittently	14	25.9%
Fully involved	28	51.9%
Fully involved and would have liked more	8	14.8%

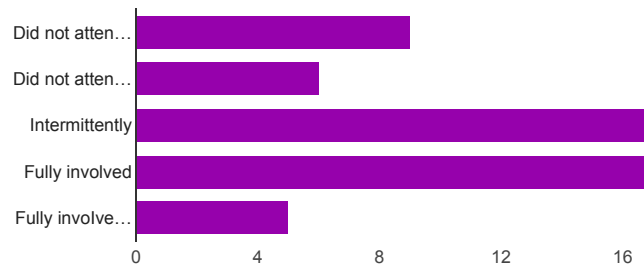**Keynote talks [How much did you attend to various regular MTM tracks?]**
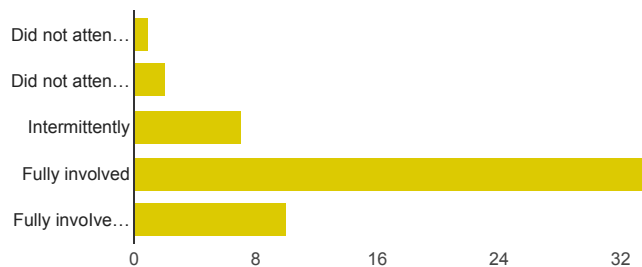
Did not attend (Did not want to)	1	1.9%
Did not attend (But wanted to)	2	3.7%
Intermittently	7	13%
Fully involved	34	63%
Fully involved and would have liked more	10	18.5%

Labs [How much did you attend to various regular MTM tracks?]
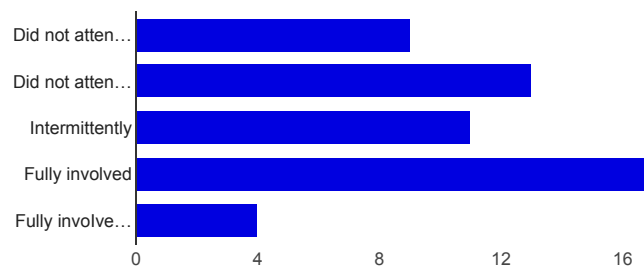

Did not attend (Did not want to)	10	18.5%
Did not attend (But wanted to)	7	13%
Intermittently	23	42.6%
Fully involved	10	18.5%
Fully involved and would have liked more	4	7.4%

30

Poster and demo presentations [How much did you attend to various regular MTM tracks?]

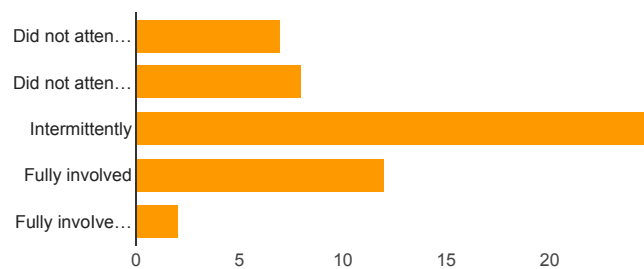| Did not attend (Did not want to) | **9** | 16.7% |
Did not attend (But wanted to)	**6**	11.1%
Intermittently	**17**	31.5%
Fully involved	**17**	31.5%
Fully involved and would have liked more	**5**	9.3%

**Work on projects [How much did you attend to various regular MTM tracks?]**

Did not attend (Did not want to)	**9**	16.7%
Did not attend (But wanted to)	**13**	24.1%
Intermittently	**11**	20.4%
Fully involved	**17**	31.5%
Fully involved and would have liked more	**4**	7.4%

**Following other project reports [How much did you attend to various regular MTM tracks?]**

31

Did not attend (Did not want to)	7	13%
Did not attend (But wanted to)	8	14.8%
Intermittently	25	46.3%
Fully involved	12	22.2%
Fully involved and would have liked more	2	3.7%

General networking (meeting people) [How much did you attend to various regular MTM tracks?]
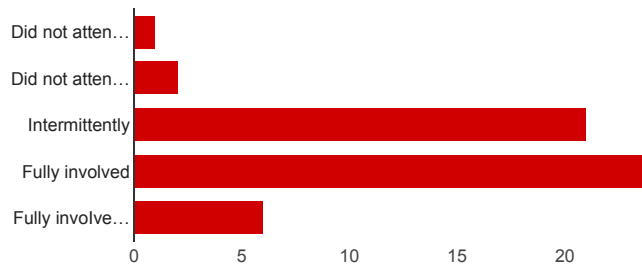
Did not attend (Did not want to)	1	1.9%
Did not attend (But wanted to)	2	3.7%
Intermittently	21	38.9%
Fully involved	24	44.4%
Fully involved and would have liked more	6	11.1%

Introductory lectures [Is there anything you would suggest changing in next Marathons?]
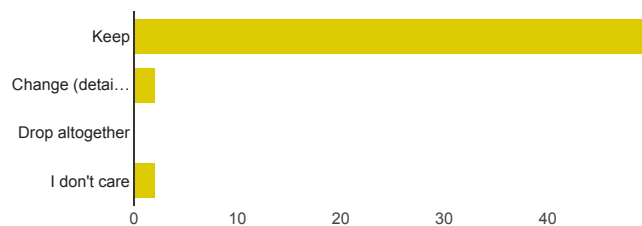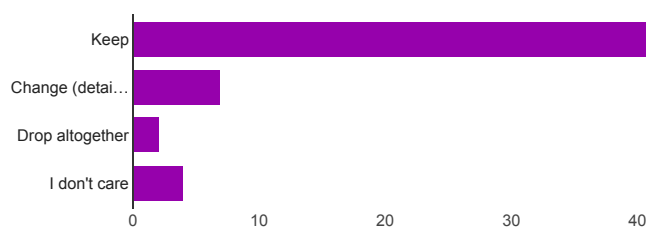

Keep	50	92.6%
Change (details below)	2	3.7%
Drop altogether	0	0%
I don't care	2	3.7%

Keynote talks [Is there anything you would suggest changing in next Marathons?]
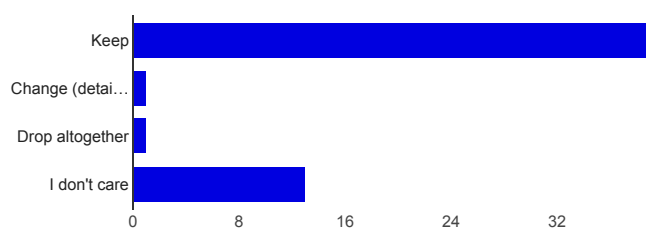
32

Keep	**48**	88.9%
Change (details below)	**1**	1.9%
Drop altogether	**1**	1.9%
I don't care	**4**	7.4%

Labs [Is there anything you would suggest changing in next Marathons?]

Keep	**41**	75.9%
Change (details below)	**7**	13%
Drop altogether	**2**	3.7%
I don't care	**4**	7.4%

Papers on tools (presented as posters and demos this year) [Is there anything you would suggest changing in next Marathons?]
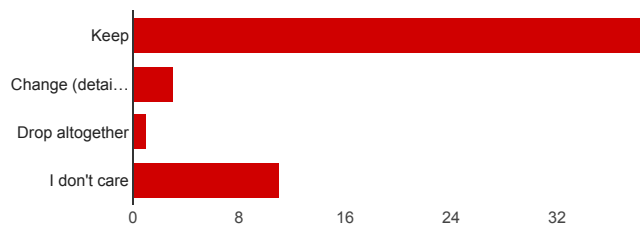

Keep	**39**	72.2%
Change (details below)	**1**	1.9%
Drop altogether	**1**	1.9%
I don't care	**13**	24.1%

Projects [Is there anything you would suggest changing in next Marathons?]

33

Keep	**45**	83.3%
Change (details below)	**2**	3.7%
Drop altogether	**0**	0%
I don't care	**7**	13%

Project presentations [Is there anything you would suggest changing in next Marathons?]

Keep	**39**	72.2%
Change (details below)	**3**	5.6%
Drop altogether	**1**	1.9%
I don't care	**11**	20.4%

Detailed comments

Introductory lectures

Again, the introductory lectures on NMT were not quite so introductory. I believe they should have been more accessible, not just for those already familiar with NMT

Lectures were all nice, however most of them assumed a basic knowledge that was maybe too demanding (maths, neural, even programming sometimes). The general lectures were all about "A is a solved problem" let's go deeper into B While, for almost all NMT related lectures, some introductory tutorial would have been most welcome

Everything was good. Thanks for covering all the necessary material for performing labs and projects.

This was my first MTM so I don't know how this is managed usually but I would like if the content overlap from year to year would be minimized.

No comment.

34

I felt the basic flow for teaching Neural Networks was missing. Lectures from different topics were just felt like adjusted in different slots. I was hoping that flow of the lectures would have gone something like, what is neural network? why do we need it? what are the current advances in neural network? what is the difference between feed forward and recursive neural nets etc. It would have been nice if the level of lectures is specified in advance. Just from the titles of lectures it was not clear what should we expect. You could also distribute lectures in basic, medium or advance category. Anyone interested in particular skill level may attend lectures of their own choice.

Keynote talks

Two keynotes would be enough. I would rather prefer lectures on methods than someone bragging about what they have done. Do not get me wrong, it is great to hear from those who achieved a lot, but that does not contribute to understanding the technologies better...

I really enjoyed the talks from industry professionals, particularly the BBC. Great to see this type of work applied to real world situations.

I understand that they are necessary, but most of them didn't tell me anything new.

No comment.

I really don't know the benefit of keynote talk.

One at most.

Labs

I felt they were too short to get to the important and interesting stuff. I would personally either drop them or dedicate more time to them.

The problem with the labs is that interesting problems in the field normally involve high computational resources (both in memory and running time). So it is not possible to do a realistic run in one session. Regretfully I do not know of a solution to this.

Somehow, labs seem to end up in (mostly blindly) running scripts instead of getting to know the fundamentals of a tool. Maybe it is better to focus on one tool throughout the marathon instead of offering multiple labs for multiple tools. Also - although we should welcome newcomers in the field - there always seem to be a couple of people who do not even know how to run a terminal off their Windows machines. It is probably better to issue a warning on the website that labs require some knowledge of Linux. This will save valuable time for everyone (often a lot of time is spent on getting these people to work with putty, after which they get stuck antway).

lab infrastructure was not well prepared, lost a lot of time for initial setup. Also, it would have been helpful to have a clear outline of steps what is intended to be achieved during the lab, otherwise it is easy to get stuck and be confused during the session.

I did not like the part of labs where we just had to dumbly execute commands and wait for magic. Hands on labs with developing something would be much better. It would also help understanding how to put things together.

Test lab sessions beforehand and make it easier to follow. Since it was the first round of new lab sessions, I guess it will already work out better in the next workshop.

there should be two separate lab activities: one for those with extensive programming experience, and another for those with more limited knowledge. it felt like I was always depending on the people with more programming knowledge sitting next to me to help me

35

through the labs.

too much configuration problems

Labs were necessary for understanding the basics of NMT and they achieved this goal.

No comment.

Labs were good but i saw many students struggling with installation and setup of different tools. Please take some measure of improving it for the next marathon.

Poster presentations

I feel like this is something that can be found at so many other NLP/MT workshops and conferences. As time is short, I would consider leaving them out and focus more on projects instead, keeping the number of introductory lectures and keynote talks.

Not sure whether posters were relevant (most of the posters were seen also elsewhere). It would be great if the posters would show how the tools presented help improving NMT quality (or help solving a problem with respect to the marathons main topic). Posters on any topic are not useful. Posters about tools that address problems discussed in the marathon are.

I always like to listen to some good presentations. That was the case.

No comment.

Projects

It's the best part of MT Marathon!

I believe that if you want to learn something, there is not much time for projects. So ... this is where the participation in projects becomes confusing...

It would be good to plan for preparing the projects some time ahead, to get the most out of them during the marathon.

(did not have time to participate, sorry)

I attended Non-Perplexity NMT Project, read recent papers from ACL conference, understood Nematus and got into contact with Rico Sennrich. I think it was the best part of MT marathon.

No comment.

Project presentations

Should be slightly more structured. I understand the whole thing is rather informal, and I have no problem with that, but some of the final presentations were really close to «ha, we did something, here's a slide, and here are four geek jokes.»

It would be nice to listen more about approaches/methods used in each project, maybe faced issues, etc., not only about project results.

The main part was done at the projects, so their presentations were just necessary to control the results.

No comment.

Project follow-up reports

Maybe a follow-up report at the next MT-Marathon?

One thing I really appreciate is how organized everything is — at least, when it's held in Prague.

36

From pre-marathon announcements, project signups, to project pitches and status updates, and then followup months down the road, and finally the maintenance and setup of the website. This is all a lot of grunt-work but it is executed very well and serves a useful purpose. Props to Ondrej and his team on all of this.

I think it is the task of the organizers and the team of projects themselves, not yours.

No comment.

Organization

Any comments on the organization or registration process?

good

Well organised!

Absolutely fabulous. Great job – thanks to all of you who worked hard!

Very well organized.

very good

The previous student accommodation was better :) I mean this one on the same street as the US embassy.

everything was smooth

Very good.

All well organized and smooth.

it was simple and quick, no issues.

Perfect organization!

Everything went smooth. I would just appreciate using some kind of sound amplification in the room.

You did your best on organizing this event. Thank you!

Well done.

I was very satisfied with communication.

very well organized

The MTM tries to be both a summer school and a hackathon, and that doesn't always work well. The large number of keynote talks, labs, lectures, etc. take away from project time. There's always something else going on distracting from project work.

Was the information before Marathon sufficient?

yes

Yes

Yes.

Instructions and information was clear

No problems here.

The information was sufficient.

The detailed info on the Amazon cluster was given out relatively late.

It would be great if you could list vegetarian food options in the neighboring area of Marathon

37

building.

Yes, the information was sufficient.

lots of information also very well organized

Social aspect

Having an "official" social event is always nice for meeting other people, as the attendance is normally higher than ad-hoc ones.

Keep the beer evening, anything more would be too much as the projects are demanding.

very good

There were no organised social events. The one bar thing was not sufficiently advertised and it was too far out in the wrong direction.

The beer garden evening was great. Having one official social event (dinner, reception) could be one step forward.

I really liked it. Keep it :-) Also please keep the joint lunch option. It's great for socializing as well.

It was a bit disappointing that (almost) no extra-curricular activities were organised. Admittedly, being part of a project meant very little free time, but it would have been nice to have the option.

maybe a short (30 minutes?) walking tour of the city by a native\long-term resident faculty member on one of the first few days?? that could have been a good way to show everyone around the city, learn a bit about Prague (or whichever city in the future will host it).

nice

Yeah. It is necessary to organize more social events.

Didn't attend but that was a good idea.

Anything to add?

Anything you want to add? Any other comments?

Thanks!

Best conference I ever attended!

I liked the MTM a lot; thanks a lot for all the effort to organise it! One remark on this questionnaire: The first question should allow for more options, such as: Developer or Manager at Government Institutions

It was my first MT Marathon and it was quite exciting event for me. Looking forward for the next one!

Well done. I really liked it and learned a lot :-)

Overall I really enjoyed the marathon, I just think it could be made more accessible to those unfamiliar to NMT

Many thanks - as I wrote - I'm from "byuer" side - not technically deep involved but keen on practical results. I understand, there is fascinating new techonolgy rising, with great potential. And, I understand, there is much investigative/research work to be done before it can be deployed practically. Many thanks for MTM event!

it was great! and very informative.

38

Before the Marathon, NMT was a far and blurry project. It simply became a reality ;)

will participate in the next MT Marathon!

It was great. I would like to attend the Marathon once again next year.

I appreciate the anonym-like-looking feedback, when I later get a note, that not all was answered:-) As I wrote to you, I'm from Localization department - we are a customer to NMT - I look into real life application -sorry, but I can't give you better feedback on your form, as it is more research-oriented:-) I'm very glad I could sit and listen to MTM event lessons, though not understood everything related to deep NMT theory:-) Helped me to understand the vision and mission for NMT future. Zdena Zavurkova

Ahoj Ondřeji, Díky za informaci. Sledoval jsem dění pouze dálkově. Podíval jsem se na PDFka. Poukaz na strojový čas od Amazonu neumím využít. Jsem stále laik. Během tří let jsem také dálkově komunikoval s Tomem Hoarem. Udělal z Thajska webinář pro mě a jednoho účastníka. Předváděl nám fungování jeho programu Slate Desktop (Slate). Jde o dvě licence stejného programu pro MS Windows. Na výkonném je možno vytvářet překladové motory a na obou PC je možno jej využívat, tj. připojit CAT, do kterého nabídky "chodí". Já používám program OmegaT (je napsaný v Javě) a je pro něj od roku 2015 k dispozici konektor pro připojení Mosese. První webinář o Slate předváděl jeho využití s programem OmegaT. Moje příspěvky o MT infikovaly majitele slovenské agetury ASAP z Nitry, Jakuba Absolona, který se (domnívám se) zúčastnil MMT v Praze a následně konference o PEMT. Znáš někoho z Ostravy, kdo používá Linux a Moses (nebo Apertium). Já jsem si koupil notebook pro tento účel až týden po MMT 2013 a nezačal jsem pracovat aktivně ani s Linuxem, ani s Mosesem. S pozdravem, Milan www.condak.cz čt 19.1.2017 10:29

Too many activities going on at the same time. Either have labs or projects.

Number of daily responses