



Distributed & Outsourced Software Engineering

**Challenges and Practical Advice for
Distributed and Outsourced
Software Engineering**

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Challenges of DOSE



Project Management

Cultural Differences

Time zones

Communication and Language skills



Challenges for DOSE:

PROJECT MANAGEMENT

Project management



Project management is difficult

In a traditional one-site setting, the manager can just go to a developer's office and ask to see the current state

It is difficult for the project manager to form a good picture of the project's progress

Configuration management plays an important role

Practical advice for project management



Provide templates

Monitor the tasks constantly

Maintain regular communication

For example, one hour weekly meetings

Remind the team about deadlines and double check with the developers if the deadline is still realistic

Practical advice for project management



Require the developers to show a proof of progress (for example by showing a demo, asking deep questions about the implementation, monitoring the code, etc)

Define commit rules

- Code must compile before commit

- Test must run before commit

- Code must review before commit

Apply code reviews:

- Review-to-commit

- Commit-then-review



Challenges for DOSE:

CULTURAL DIFFERENCES

Cultural differences



Working in the same culture - common knowledge

Swiss national day

Being on time is important

Different cultures

Different cultural backgrounds

Different national holydays

Different interpretations

Cultural differences: train in India



Cultural differences: traffic in Hanoi



Cultural differences: Cambodia





Illustrative Examples (these examples are only illustrative examples)

CULTURAL DIFFERENCES



For example, for Indians:

“yes” means “yes, I have heard you”

“done” means “I will start to do it tomorrow”

Negative feedback is giving by

not responding

Trying not to answer

Suggesting alternatives

[Examples from: Working with India - Wolfgang Messner]

Negative feedback



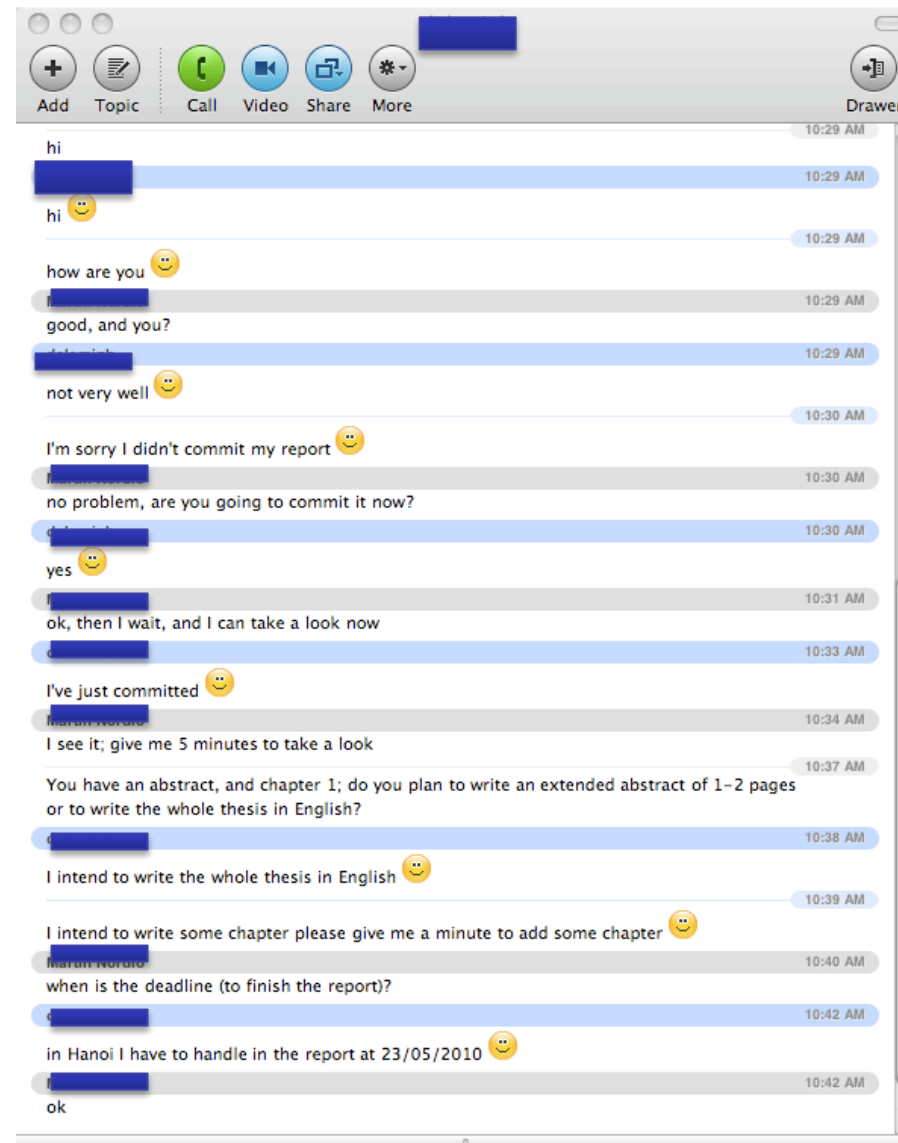
Company C in Germany sends a feedback form to Company D in India

After 5 days: C contacts D asking about the feedback

Company D: feedback form? When?

[Examples from: Working with India - Wolfgang Messner]

A chat with Vietnam



A meeting between two Swiss



A: Hi B, can we meet next week?

B: Wednesday 2:00 pm?

A: ok, Wednesday at 2pm

-Wednesday -

1:55 pm - the meeting room is empty

1:59 pm - the meeting room is still empty

2:00 pm - A and B arrive to the meeting room and the meeting starts

A meeting between two Argentinians



M: Hi C, can we meet next week?

C: Wednesday **around** 2pm?

M: ok, Wednesday at 2pm

-Wednesday -

1:55 pm - M: Hi C, I am going to be 10 minutes late

2:15 pm - M arrives to his office

2:20 pm - C: Hi M, do not worry, I will also be late

2:30 pm - the meeting starts

Name and family name (Vietnam)



Lê Minh Đức

Do Lê Minh



Working with Vietnam



M: Can you finish the requirements document by next week?

V: Yes.

M: But there is a lot to do, do you have time?

V: Yes.

M: Can you finish the requirement document by Saturday?

V: Yes

M: Ok, and what about tomorrow, can you finish it by tomorrow?

V: Yes, yes, yes.

Hiring in India



Person A is hired in company C to start on November 1st

Company C contacts A on October 29th to check if A still plans to start to work at C

On Monday November 1st, A decides to start to work in another company

Practical advice: cultural differences



Be aware of the cultural differences and learn about the counterpart's cultures

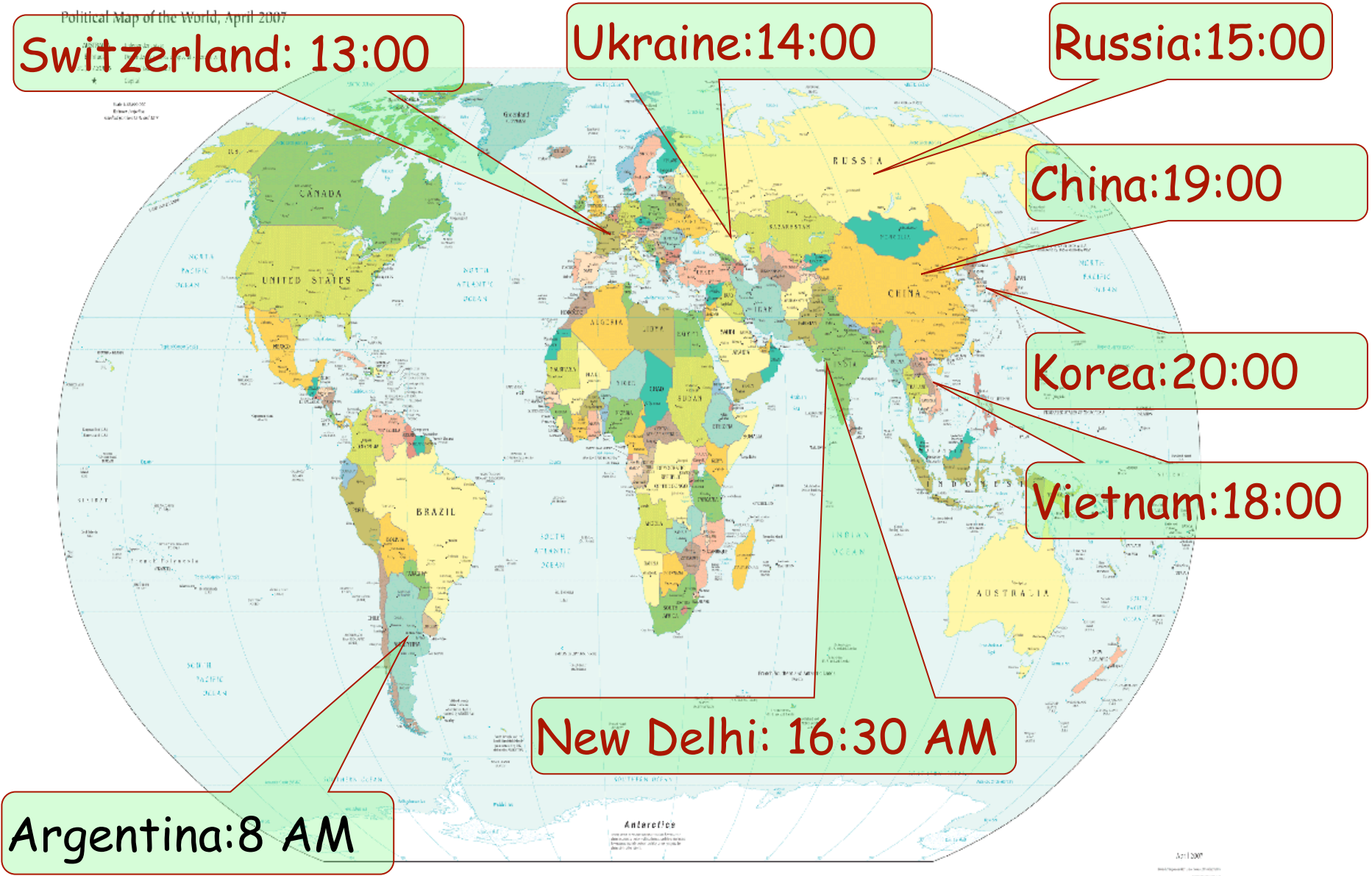
Indicate the country holidays in a common calendar

Take into account the country holidays when defining a deadline



Challenges for DOSE:
TIME ZONES

Challenges: time zones



Practical advice: time zones



Keep meetings on schedule

Keep in mind the Daylight Saving Time

Do not wait to send an e-mail (even if the it is late or early in the other time zones)

Challenges: communication and language skills



E-mail is not enough - need for voice communication

Communication through phone/skype and video conference is difficult

Heavy accents

Different English mistakes to the ones one is used to

Tools are important

More practical advice



Use several forms of communications: e-mail, voice conferences, wikis, docs

Create mailing lists

Send the important information in writing

Write minutes of the meetings recording decisions taken, and action items (todos)