# AGILE 2019 PhD School Proceedings

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This document provides some scripts and documentation of manual steps for generating the AGILE 2019 PhD School Proceedings for CEUR-WS.

### Get the repos

```
library("here")

## here() starts at /home/daniel/git/agile_2019_phd_school_proceedings

article_repos <- here::here("article_repos")
article_pdfs <- here::here("submission/ceur-ws")</pre>
```

To update a specific article, simply delete the corresponding directory article\_repos

```
# read from repos.txt
library("tibble")
suppressPackageStartupMessages(library("dplyr"))
library("stringr")
library("rmarkdown")
articles <- as_tibble(read.csv2(here::here("repos.txt"), comment.char = "#",
                                stringsAsFactors = FALSE)) %>%
  dplyr::mutate(id = stringr::str_replace_all(.$author, "[;\\.,\\s]", " ") %>%
                  stringr::str_replace_all(
                    c('ü' = 'ue', 'ï' = 'ie', 'ë' = 'ee', 'ä' = 'ae',
                      'ö' = 'oe', 'š' = 's', 'í' = 'i', 'ř' = 'r')) %>%
                  stringr::str_squish() %>%
                  stringr::str_replace_all(" ", "_")) %>%
  dplyr::mutate(path = file.path(article_repos, .$id)) %>%
  arrange(id)
# clone repos
library("gert")
```

```
## Linking to libgit2 v0.27.7, ssh support: YES, https support: YES
## Default user: Travis CI <daniel.nuest@uni-muenster.de>
```

```
repo <- articles[i,]
  path <- repo$path
  if(dir.exists(path)) {
    cat("Skipping existing directory ", rmarkdown::relative_to(dir = here(), path), "\n")
  }
  dir.create(path, showWarnings = FALSE)
  cat("Cloning for", repo$author, "from", repo$work_repo, "to", path, "\n")
  gert::git_clone(url = paste0("https://github.com/", repo$work_repo), path = path)
}
## Skipping existing directory article_repos/Alexander_Kmoch_Evelyn_Uuemaa_Daniel_Nuest
## Skipping existing directory article_repos/Bruno_Montibeller
## Skipping existing directory article_repos/Daiga_Parsova
## Skipping existing directory article_repos/Ditsuhi_Iskandaryan
## Skipping existing directory article_repos/Ewa_Grabska
## Skipping existing directory article_repos/Georgios_Leventis
## Skipping existing directory article_repos/Jakub_Konicek
## Cloning for Jennie Gray from agilephdschool2019/jgray1923_AGILE_2019 to /home/daniel/git/agile_2019_
## Skipping existing directory article_repos/Marcin_Szwagrzyk
## Skipping existing directory article_repos/Marketa_Beitlova
## Skipping existing directory article_repos/Moris_Zahtila
## Cloning for Najmeh Mozaffaree Pour from agilephdschool2019/nmp1987_agile_2019 to /home/daniel/git/ag
## Skipping existing directory article_repos/Radek_Barvir
## Skipping existing directory article_repos/Sansar_Raj_Meena
## Skipping existing directory article_repos/Yannis_Paraskevopoulos
```

### Create a PDF for each repo

for (i in 1:nrow(articles)) {

```
remotes::install_local("template/ceurticles", force = TRUE, dependencies = FALSE)
        checking for file '/tmp/Rtmpz5SL5a/filec3e16fef6d2/ceurticles/DESCRIPTION' ... v checking for
##
##
     - preparing 'ceurticles':
##
     checking DESCRIPTION meta-information ... v checking DESCRIPTION meta-information
     - checking for LF line-endings in source and make files and shell scripts
##
##
     - checking for empty or unneeded directories
       building 'ceurticles_0.1.9001.tar.gz'
##
##
##
## Installing package into '/home/daniel/R/x86_64-pc-linux-gnu-library/3.6'
## (as 'lib' is unspecified)
```

- 1. Identify "main file"
- 2. For each article
- 3. Copy template files using the template in the R package template/ceurticles to the paper directory
- 4. Render document

```
rmd_file <- function(p) {</pre>
  candidates <- list.files(p, pattern = "\\.Rmd$", ignore.case = TRUE)</pre>
  if(length(candidates) > 1) {
    warning("Found more than one R Markdown file in ", p, "\n\t",
            toString(candidates), "\n\tUsing: ", candidates[[1]], "\n\n")
    return(candidates[[1]])
  if(length(candidates) < 1) {</pre>
    warning("Found NO R Markdown file in ", p, "\n\n")
    return(NA)
  }
  else {
    return(candidates)
}
articles rmd_file <- unlist(sapply(articles %>% arrange(id) %>% .$path, rmd_file))
## Warning in FUN(X[[i]], ...): Found more than one R Markdown file in /home/daniel/git/agile_2019_phd_
## AGILEreport.Rmd, notes.Rmd
## Using: AGILEreport.Rmd
## Warning in FUN(X[[i]], ...): Found more than one R Markdown file in /home/daniel/git/agile_2019_phd_
## Meena.Rmd, notes.Rmd
## Using: Meena.Rmd
library("kableExtra")
## Attaching package: 'kableExtra'
## The following object is masked from 'package:dplyr':
##
##
       group_rows
articles %>%
  dplyr::mutate(path = sapply(articles$path,
                              rmarkdown::relative_to, dir = here(),
                              USE.NAMES = FALSE)) %>%
  knitr::kable(format = "latex") %>%
  kableExtra::kable_styling(latex_options="scale_down")
```

author	work_repo	other_repo	id	path	rmd_file
Alexander Kmoch, Evelyn Uuemaa, Daniel Nüst		allixender/agile_2019_summary	Alexander_Kmoch_Evelyn_Uuemaa_Daniel_Nuest	article_repos/Alexander_Kmoch_Evelyn_Uuemaa_Daniel_Nuest	index.Rmd
Bruno Montibeller	agilephdschool2019/brunomontibeller_agile_2019	brunomontibeller/agile_2019	Bruno_Montibeller	article_repos/Bruno_Montibeller	notes_agile_2019.Rmd
Daiga Paršova	agilephdschool2019/daigaparsova_AGILE	daigaparsova/AGILE	Daiga_Parsova	article_repos/Daiga_Parsova	notes.rmd
Ditsuhi Iskandaryan	agilephdschool2019/Ditsuhi_agile2019	Ditsuhi/agile2019	Ditsuhi_Iskandaryan	article_repos/Ditsuhi_Iskandaryan	Summary.Rmd
Ewa Grabska		egrabska/tartu_project	Ewa_Grabska	article_repos/Ewa_Grabska	project.Rmd
Georgios Leventis		gxarmanis/agile_2019_test	Georgios_Leventis	article_repos/Georgios_Leventis	notes.Rmd
Jakub Konicek	agilephdschool2019/konija01_agile	konija01/agile_test	Jakub_Konicek	article_repos/Jakub_Konicek	konicek.Rmd
Jennie Gray		jgray1923/AGILE_2019_test	Jennie_Gray	article_repos/Jennie_Gray	AGILEreport.Rmd
Marcin Szwagrzyk	agilephdschool2019/marcinszwagrzyk_AGILE_school	marcinszwagrzyk/AGILE_school	Marcin_Szwagrzyk	article_repos/Marcin_Szwagrzyk	notatka.Rmd
Marketa Beitlova	agilephdschool2019/espesedm7_agile_2019	espesedm7/agile_2019	Marketa_Beitlova	article_repos/Marketa_Beitlova	notetex.Rmd
Moris Zahtila	agilephdschool2019/mzahtila_agile_phd_school	mzahtila/agile_phd_school	Moris_Zahtila	article_repos/Moris_Zahtila	notes.Rmd
Najmeh Mozaffaree Pour	agilephdschool2019/nmp1987_agile_2019	nmp1987/agile_2019_test	Najmeh_Mozaffaree_Pour		najmeh.Rmd
Radek Barvíř	agilephdschool2019/radekbarvir_agile_2019	radekbarvir/agile_2019_test	Radek_Barvir	article_repos/Radek_Barvir	radek.Rmd
Sansar Raj Meena	agilephdschool2019/sansarmeena_Agile_2019_phd		Sansar_Raj_Meena	article_repos/Sansar_Raj_Meena	Meena.Rmd
Yannis Paraskevopoulos	agilephdschool2019/yannis-p_agile_2019	yannis-p/agile_2019_test	Yannis_Paraskevopoulos	article_repos/Yannis_Paraskevopoulos	notes_pre_fv.rmd

```
library("rmarkdown")
library("rticles")
library("ceurticles")
dir.create(article_pdfs, showWarnings = FALSE)
template_dir <- tempdir()</pre>
if (!file.exists(file.path(template_dir, "article.Rmd")))
  rmarkdown::draft(file.path(template_dir, "article.Rmd"),
                   template = "twocolpceurws_article", package = "ceurticles",
                   edit = FALSE, create_dir = FALSE)
copy_article_files <- function(article) {</pre>
 file.copy(file.path(template_dir, c("copyright.tex",
                                       "twocolpceurws.sty",
                                       "samplebib.bib")),
            article$path, overwrite = FALSE)
}
#copy_article_files(article = articles[1,])
for (i in 1:nrow(articles)) {
  copy_article_files(article = articles[i,])
```

### Now manually make sure that the R Markdown files compile.

Here is a template header with the required fields. Note that the bibliography, even if no references are used, must be set. The authors' affiliation, orcid and email are optional.

```
title: "AGILE PhD School working notes"
author:
  - name: Alexander Kmoch
   affiliation: University of Tartu, Estonia
   email: alexander.kmoch@ut.ee
   orcid: 0000-0003-4386-4450
  - name: Evelyn Uuemaa
   affiliation: University of Tartu, Estonia
   orcid: 0000-0002-0782-6740
abstract:
  TODO abstract here
output:
  ceurticles::twocolpceurws_article
bibliography: samplebib.bib
render_article_file <- function(article) {</pre>
  output_file <- file.path(article_pdfs, paste0(article$id, ".pdf"))</pre>
  cat("Rendering article", file.path(article$path, article$rmd_file),
      "to", output_file, "\n")
 rmarkdown::render(file.path(article$path, article$rmd_file),
                    output_file = output_file)
```

```
}
#render_article_file(articles[14,])
for (i in 1:nrow(articles)) {
  render_article_file(article = articles[i,])
##
##
## processing file: index.Rmd
## output file: index.knit.md
##
## Output created: submission/ceur-ws/Alexander_Kmoch_Evelyn_Uuemaa_Daniel_Nuest.pdf
##
##
## processing file: notes_agile_2019.Rmd
## output file: notes_agile_2019.knit.md
##
## Output created: submission/ceur-ws/Bruno_Montibeller.pdf
##
##
## processing file: notes.rmd
## output file: notes.knit.md
## Output created: submission/ceur-ws/Daiga_Parsova.pdf
##
##
## processing file: Summary.Rmd
## output file: Summary.knit.md
## Output created: submission/ceur-ws/Ditsuhi_Iskandaryan.pdf
##
## processing file: project.Rmd
## output file: project.knit.md
```

```
##
## Output created: submission/ceur-ws/Ewa_Grabska.pdf
##
##
## processing file: notes.Rmd
## output file: notes.knit.md
##
## Output created: submission/ceur-ws/Georgios_Leventis.pdf
##
##
## processing file: konicek.Rmd
## output file: konicek.knit.md
## Output created: submission/ceur-ws/Jakub_Konicek.pdf
##
##
## processing file: AGILEreport.Rmd
## output file: AGILEreport.knit.md
## Output created: submission/ceur-ws/Jennie_Gray.pdf
##
##
## processing file: notatka.Rmd
## output file: notatka.knit.md
## Warning: Package movie15 Warning: @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
## (movie15)
                           @@ Package `movie15' is obsolete and @@
## (movie15)
                           @@ superseded by `media9'.
## (movie15)
                           ## Output created: submission/ceur-ws/Marcin_Szwagrzyk.pdf
##
##
## processing file: notetex.Rmd
## output file: notetex.knit.md
```

```
##
## Output created: submission/ceur-ws/Marketa_Beitlova.pdf
##
##
## processing file: notes.Rmd
## output file: notes.knit.md
##
## Output created: submission/ceur-ws/Moris_Zahtila.pdf
##
##
## processing file: najmeh.Rmd
## output file: najmeh.knit.md
## Output created: submission/ceur-ws/Najmeh_Mozaffaree_Pour.pdf
##
## processing file: radek.Rmd
## output file: radek.knit.md
## Output created: submission/ceur-ws/Radek_Barvir.pdf
##
##
## processing file: Meena.Rmd
## output file: Meena.knit.md
##
## Output created: submission/ceur-ws/Sansar_Raj_Meena.pdf
##
## processing file: notes_pre_fv.rmd
## output file: notes_pre_fv.knit.md
## Output created: submission/ceur-ws/Yannis_Paraskevopoulos.pdf
```

## list.files(article\_pdfs)

```
[1] "AGILEPHD2019.bib"
##
##
   [2] "Alexander_Kmoch_Evelyn_Uuemaa_Daniel_Nuest.pdf"
   [3] "Bruno_Montibeller.pdf"
   [4] "Daiga_Parsova.pdf"
##
   [5] "Ditsuhi_Iskandaryan.pdf"
##
##
   [6] "Ewa_Grabska.pdf"
   [7] "Georgios_Leventis.pdf"
##
   [8] "index.html"
## [9] "Jakub_Konicek.pdf"
## [10] "Jennie_Gray.pdf"
## [11] "Marcin_Szwagrzyk.pdf"
## [12] "Marketa_Beitlova.pdf"
## [13] "Moris_Zahtila.pdf"
## [14] "Najmeh_Mozaffaree_Pour.pdf"
## [15] "Radek_Barvir.pdf"
## [16] "Sansar_Raj_Meena.pdf"
## [17] "Yannis_Paraskevopoulos.pdf"
```

# Create CEUR-WS proceedings

Based on http://ceur-ws.org/HOWTOSUBMIT.html

#### Generate the table of contents

- 1. Install ceur-make
- On Ubuntu install libsaxonhe-java and find the location of the .jar file with dpkg -L libsaxonhe-java (or get the JAR from somewhere else)
- Create the submission files from the directory of ceur-make, using
   ./ceur-make-init ~/git/agile\_2019\_phd\_school\_proceedings/submission
- Adjust Makefile.vars with path to SAXON HE
- 3. Enter all information in submission/workshop.xml manually
- 4. Enter all information in submission/toc.xml with the script below

```
suppressPackageStartupMessages(library("glue"))
author_template <- '<author>{author>'
paper_template <- '<paper id="{id}">
      <title>{title}</title>
      <authors>
        {authors}
      </authors>
  </paper>'
generate_toc_entry <- function(article) {</pre>
  article_yaml <- rmarkdown:::yaml_front_matter(file.path(article$path, article$rmd_file))
  authors <- paste0(glue::glue_data(</pre>
                          list(author = sapply(article_yaml$author,
                                                function(a) { a$name })),
                          author_template),
                    collapse = "\n
                                         ")
  glue::glue_data(list(title = article_yaml$title,
                        id = article$id,
                        authors = authors),
                  paper_template)
}
tocs <- c()
for (i in 1:nrow(articles)) {
  tocs <- c(tocs, generate_toc_entry(article = articles[i,]))</pre>
toc_file <- file("submission/toc.xml")</pre>
writeLines(c("<toc>",
             tocs,
             "</toc>"),
           con = toc file)
close(toc file)
```

3. Create submission in submission directory with ceur-make

```
make ceur-ws/index.html ceur-ws/temp.bib
mv ceur-ws/temp.bib ceur-ws/AGILEPHD2019.bib

## i=1; \
## for p in 999?????; \
## do \
## [[! -e $p/$p.pdf]] && break; \
## ln -sfv ../$p/$p.pdf ceur-ws/paper-$(printf "%02d" $i).pdf; \
## ((i++)); \
## done; \
## if [[-e ../proc.pdf]]; then \
## ln -sfv ../proc.pdf ceur-ws/$(< ID)-complete.pdf; \
## fi
## java -jar /usr/share/maven-repo/net/sf/saxon/Saxon-HE/9.9.1.1/Saxon-HE-9.9.1.1.jar toc.xml toc2ceuri:
## > ceur-ws/index.html
## java -jar /usr/share/maven-repo/net/sf/saxon/Saxon-HE/9.9.1.1/Saxon-HE-9.9.1.1.jar toc.xml toc2bibte
```

### Prepare the submission file

cd submission

1. Double check submission/ceur-ws/index.html and submission/ceur-ws/AGILEPHD2019.bib

## echo "Please copy ceur-ws/temp.bib to ceur-ws/\$(< ID).bib and fine-tune manually"
## Please copy ceur-ws/temp.bib to ceur-ws/AGILEPHD2019.bib and fine-tune manually</pre>

2. HTML Validation: "You can check the consistency/completeness of the submission directory by accessing it locally with your Web browser, and we require you to validate it using the W3C Validator. If you use RDFa tags, we ask you to validate your RDFa by using the W3C RDFa parser."

Note: If you make any changes in the directory submission/ceur-ws, you must manually recreate the ZIP file!

```
submission_file <- here::here("submission/agilephd2019.zip")
file.remove(submission_file)

## [1] TRUE

zip(zipfile = submission_file, files = "submission/ceur-ws")</pre>
```

### Submit with the "Upload (Procedure PUT)"

- 1. Check http://ceur-ws.org/HOWTOSUBMIT.html#TOPERRORS
- 2. Create a release tag, https://github.com/agilephdschool2019/agile\_2019\_phd\_school\_proceedings/releases
- 3. Upload the submission ZIP  ${\tt r}$  to some public share
- 4. Upload a ZIP with the signed agreements to some public share
- 5. Send the link to the submission archive to CEUR via Email
- Subject: CEURWS submission: AGILE PhD School 2019
- Content:
  - URLs of the aforementioned ZIP files
  - Your contact details

### Metadata

#### sessionInfo()

```
## R version 3.6.2 (2019-12-12)
## Platform: x86_64-pc-linux-gnu (64-bit)
## Running under: Ubuntu 19.10
## Matrix products: default
          /usr/lib/x86_64-linux-gnu/openblas/libblas.so.3
## BLAS:
## LAPACK: /usr/lib/x86_64-linux-gnu/libopenblasp-r0.3.7.so
## locale:
##
  [1] LC_CTYPE=en_US.UTF-8
                                   LC_NUMERIC=C
  [3] LC_TIME=de_DE.UTF-8
                                   LC_COLLATE=en_US.UTF-8
##
   [5] LC_MONETARY=de_DE.UTF-8
                                   LC_MESSAGES=en_US.UTF-8
   [7] LC_PAPER=de_DE.UTF-8
                                   LC NAME=C
                                   LC_TELEPHONE=C
##
  [9] LC_ADDRESS=C
## [11] LC_MEASUREMENT=de_DE.UTF-8 LC_IDENTIFICATION=C
##
## attached base packages:
## [1] stats
                 graphics grDevices utils
                                               datasets methods
                                                                    base
##
## other attached packages:
## [1] glue_1.4.0
                            ceurticles_0.1.9001 rticles_0.14.1
  [4] kableExtra_1.1.0
                            gert_0.3
                                                rmarkdown_2.1
                                                tibble_3.0.1
## [7] stringr_1.4.0
                            dplyr_0.8.5
## [10] here_0.1
##
## loaded via a namespace (and not attached):
## [1] Rcpp_1.0.4.6
                          pillar_1.4.3
                                            compiler_3.6.2
                                                               prettyunits_1.1.1
   [5] remotes_2.1.1
                          tools_3.6.2
                                            sys_3.3
                                                               pkgbuild_1.0.7
## [9] digest_0.6.25
                          viridisLite_0.3.0 evaluate_0.14
                                                               lifecycle_0.2.0
## [13] pkgconfig_2.0.3
                          rlang 0.4.5
                                            rstudioapi_0.11
                                                               cli 2.0.2
## [17] yaml_2.2.1
                          xfun_0.13
                                            xml2_1.3.2
                                                               httr_1.4.1
## [21] withr_2.2.0
                          knitr_1.28
                                            hms_0.5.3
                                                               vctrs_0.2.4
## [25] askpass 1.1
                                                               tidyselect 1.0.0
                          webshot_0.5.2
                                            rprojroot_1.3-2
## [29] R6 2.4.1
                          processx 3.4.2
                                            fansi_0.4.1
                                                               readr 1.3.1
## [33] purrr_0.3.4
                                                               scales 1.1.0
                          callr_3.4.3
                                            magrittr_1.5
## [37] backports_1.1.6
                          credentials_1.1
                                            ps_1.3.2
                                                               ellipsis_0.3.0
## [41] htmltools_0.4.0
                          rvest_0.3.5
                                            assertthat_0.2.1 colorspace_1.4-1
## [45] tinytex_0.22
                          stringi_1.4.6
                                            munsell_0.5.0
                                                               openssl_1.4.1
## [49] crayon_1.3.4
```