

1 Readme for applying the reproducible research code

- Requires R (tested with R version 3.2.3), downloadable from <https://cran.r-project.org/bin/windows/base/> for windows)
- Requires certain input files (see exemplary directory):
 - An .xlsx file called *Relevant_Websites* containing the platforms classification data. This file requires the following columns:
 - * *removed*: Indicates, whether a platform does not exist anymore (in this case, it is marked with an *x*).
 - * *removal reason*: Indicates, why a platform does not exist anymore. If it should appear under *acquisitions* it should contain the word *acquired*, if it should appear under *changed business concept* it should contain the word *changed* and if it should appear under *ceased* it should contain the words *ceased* or *Website* (as in *website down*). Websites marked with *no SCC website* are ignored altogether.
 - * *name*: The name of the platform.
 - * *stripped_url*: The URL of the platform, preferably without the file path.
 - * *Resource_Type*: The resource type of the platform.
 - * *economical*: Does the platform promote economical advantages? *x* means *yes*, *o* means *no*.
 - * *environmental*: Does the platform promote benefits for the environment? *x* means *yes*, *o* means *no*.
 - * *social*: Does the platform promote social benefits? *x* means *yes*, *o* means *no*.
 - * *P2P_Pattern*: Determines how fast the service can be utilized or how long of a planning period it requires. Must be of type: *Immediate*, *Recurrent* or *Deferred*, if the platforms service can be used immediately, only requires longer planning the first time or always requires longer planning, respectively.
 - * *Market_Mediation*: States how a platform generates profit. Must be of type *Profit from peer providers*, *Profit from peer consumers*, *Profit from both peer consumers and peer providers*, *Indirect profit* or *Not-for-profit*.
 - * *Type_of_Accessed_Object*: Is the accessed object purely functional or offers other benefits like social interaction? Must be of type *Functional* for the first category and *Mixed* for the latter.
 - * *Resource_Owner*: Determines whether the resource can be owned only by *Private* users or by *Private and Business*.

- * *Consumer_Involvement*: Determines how much the consumer is involved in the service. Either *Self-service*, *In-Between* or *Full-Service*.
 - * *Money_Flow*: Determines how the money flows from the view of users. Must be of type *C2B*, *C2C*, *C2B2C* or *Free*.
 - * *Global_Integration*: Either *Global* or *Separated Communities*.
 - * *Global_Integration_finetest_level*: Either *City-wide*, *Country-wide*, *Region-wide* or *Global*.
 - * *Per_transaction*: Does the platform charge users per transaction? *x* means *yes*, *o* means *no*.
 - * *Per_listing*: Does the platform charge users per listing? *x* means *yes*, *o* means *no*.
 - * *Membership*: Does the platform charge users as membership fee? *x* means *yes*, *o* means *no*.
 - * *Membership*: Does the platform charge users a membership fee? *x* means *yes*, *o* means *no*.
 - * *iOS*: Does the platform offer an iOS app? *x* means *yes*, *o* means *no*.
 - * *Android*: Does the platform offer an Android app? *x* means *yes*, *o* means *no*.
 - * *WindowsPhone*: Does the platform offer a Windows Phone app? *x* means *yes*, *o* means *no*.
- A .csv file called *pageViewsPerPlatform* with two columns containing 1) the stripped URL of the platform (column *URL*) and its page views (aggregated to a period of three months, column *TotalViews*).
 - A .csv file called *countryOrigins* with one column (*Launch_Country*) with the launch country codes in ISO2 format for the platforms to be considered.
 - A .csv file *Iterations Sharing Monitor* containing the columns *Iteration*, *Started*, *Number of new platforms*, *Number of dead platforms*, *Total number of platforms* and *Sources*.
 - A folder *inputdata/awisresultold* containing data on the page views gathered in 2014 (this folder should simply be copied from Git and not modified).

All .csv files must have the same separator, e.g. all ;. The, TeX and .csv files can be automatically generated calling the file *GenerateOutput.R* using the console and *Rscript* (this requires the installation of R and Rtools). Alternatively, the script *GenerateOutputManual.R* can be executed with an R-environment (e.g. *RStudio*). Figure 1 shows the command. For incorrect dimension characteristics, warnings are printed out on the console (cf. Figure 2). The generated TeX output is located in *outputTex*. These must be copied into a folder *auto-Generated* in your TeX project. Additionally, three .csv files are generated in

```
Rscript GenerateOutput.R "," ","
```

Figure 1: Console call to execute the script

```
Column 'Global_Integration_finetest_level' contains value that differ from 'global', 'city-wide', 'country-wide', 'region-wide', 'continent-wide' or 'global'. Check the spelling! Check entry 503
```

Figure 2: Console warning for incorrect characteristics

the folder *outputCsv*. These contain data for all platforms, the comparison of ceased vs. operating and old vs. newer platforms.

We provide the files we used to create our code in the folder *inputdata*. Simply replace these by your platform results to generate new output.