Stat 19, Probability and Poker. Rick Paik Schoenberg

Outline for the day:

1. Discuss Addiction.

2. *R*.

3. Greenstein and Farha.

4. Counting and combinations.

5. P(A♠ after first ace).

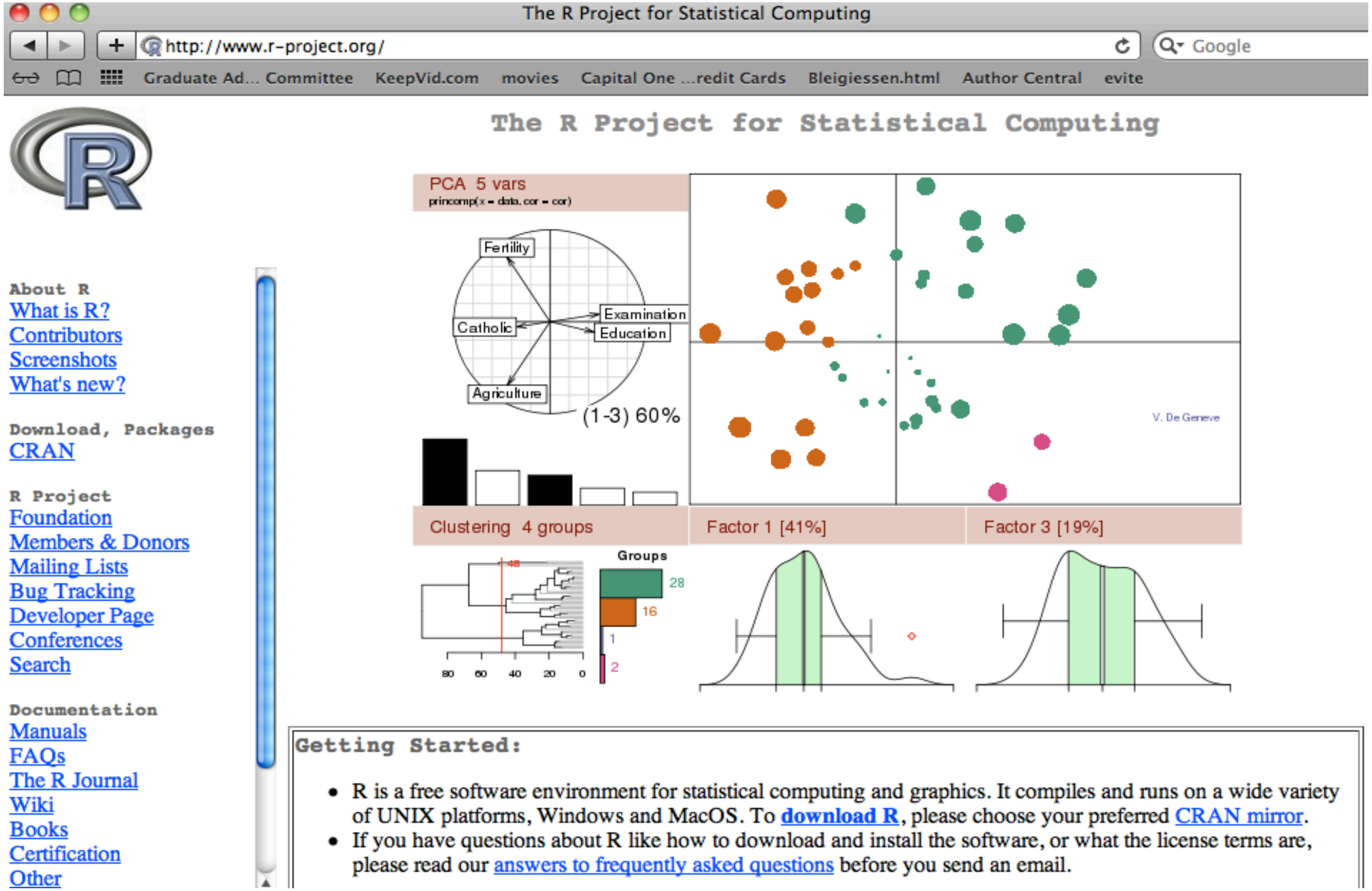
Read harrington1.pdf for next time.

Think of 1-2 questions or comments for next time.

The course website is http://www.stat.ucla.edu/~frederic/19/F21 .

***R*.** To download and install *R*, start at www.r-project.org, click on "download *R*", scroll down and click on one of the mirrors closest to you.

From there, click on "download R for …", and then get the latest version.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Factor 1 [41%]
Factor 3 [19%]
Groups
28
16
1
2
48
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The R Project for Statistical Computing

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Getting Started:

- R is a free software environment for statistical computing and graphics. It compiles and runs on a wide variety of UNIX platforms, Windows and MacOS. To **download R**, please choose your preferred CRAN mirror.
- If you have questions about R like how to download and install the software, or what the license terms are, please read our answers to frequently asked questions before you send an email.

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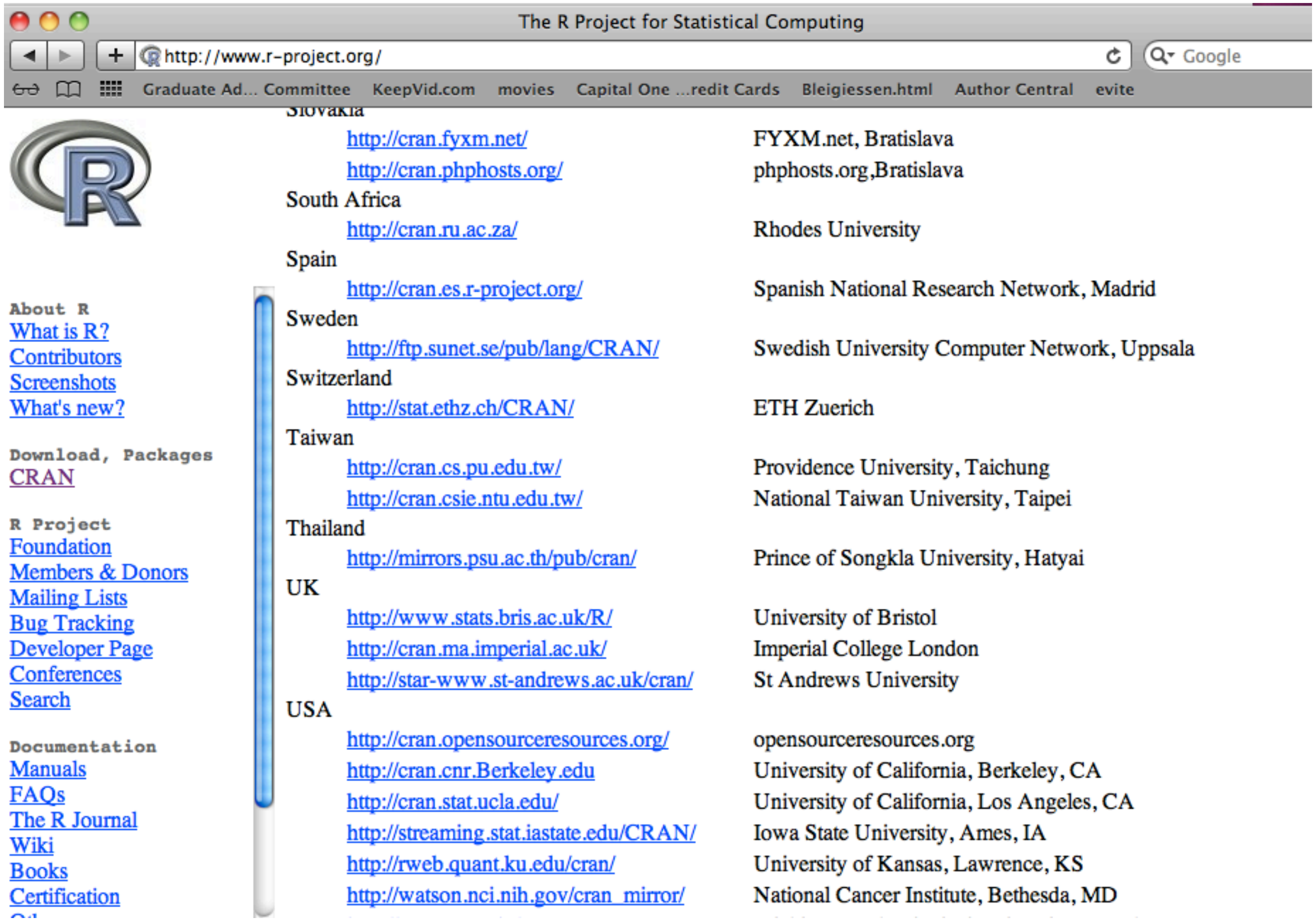
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Spain		
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	http://cran.csie.ntu.edu.tw/	National Taiwan University, Taipei
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	http://streaming.stat.iastate.edu/CRAN/	Iowa State University, Ames, IA
	http://rweb.quant.ku.edu/cran/	University of Kansas, Lawrence, KS
	http://watson.nci.nih.gov/cran_mirror/	National Cancer Institute, Bethesda, MD

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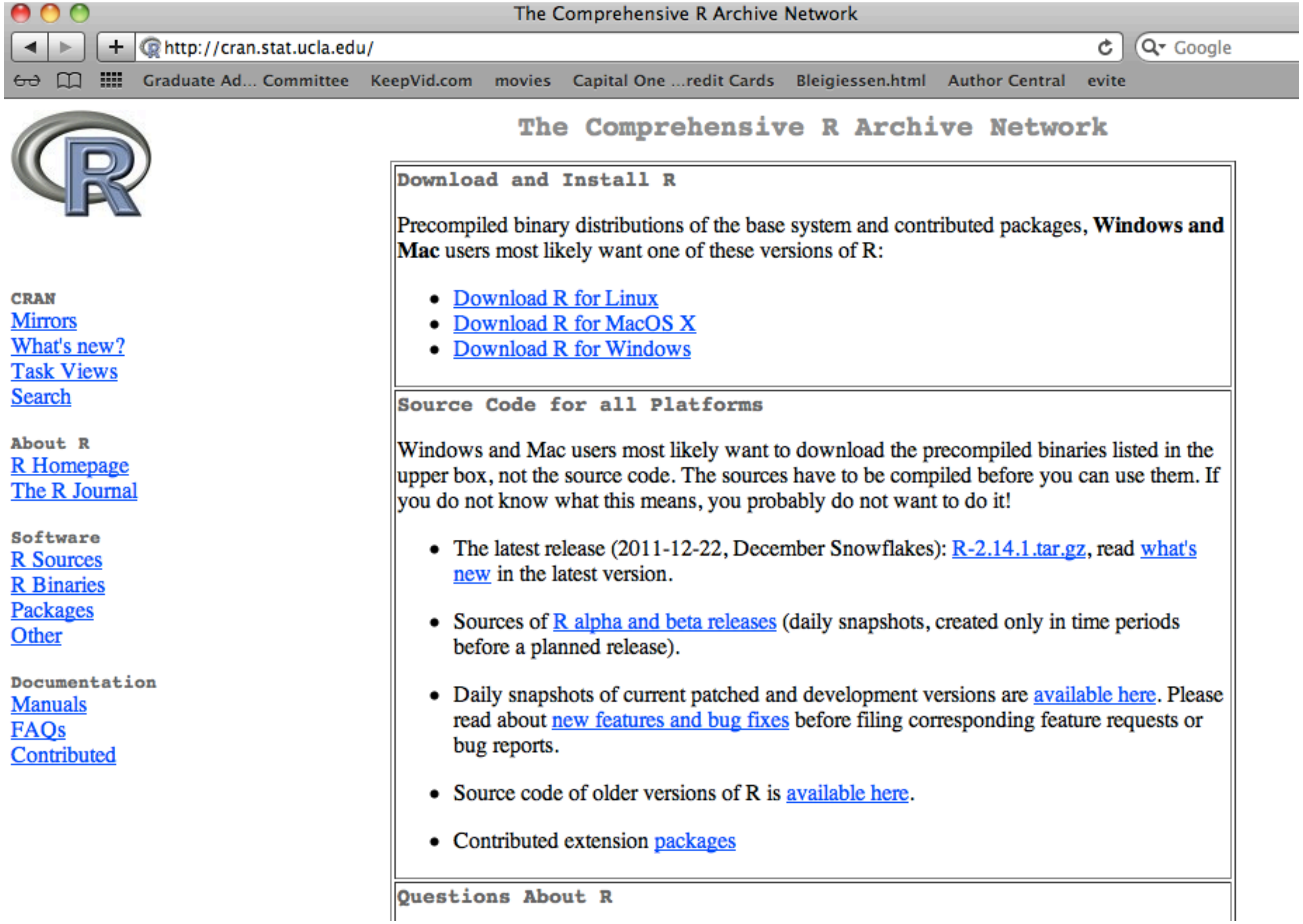
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The Comprehensive R Archive Network

Download and Install R

Precompiled binary distributions of the base system and contributed packages, **Windows and Mac** users most likely want one of these versions of R:

- Download R for Linux
- Download R for MacOS X
- Download R for Windows

Source Code for all Platforms

Windows and Mac users most likely want to download the precompiled binaries listed in the upper box, not the source code. The sources have to be compiled before you can use them. If you do not know what this means, you probably do not want to do it!

- The latest release (2011-12-22, December Snowflakes): R-2.14.1.tar.gz, read what's new in the latest version.
- Sources of R alpha and beta releases (daily snapshots, created only in time periods before a planned release).
- Daily snapshots of current patched and development versions are available here. Please read about new features and bug fixes before filing corresponding feature requests or bug reports.
- Source code of older versions of R is available here.
- Contributed extension packages

Questions About R

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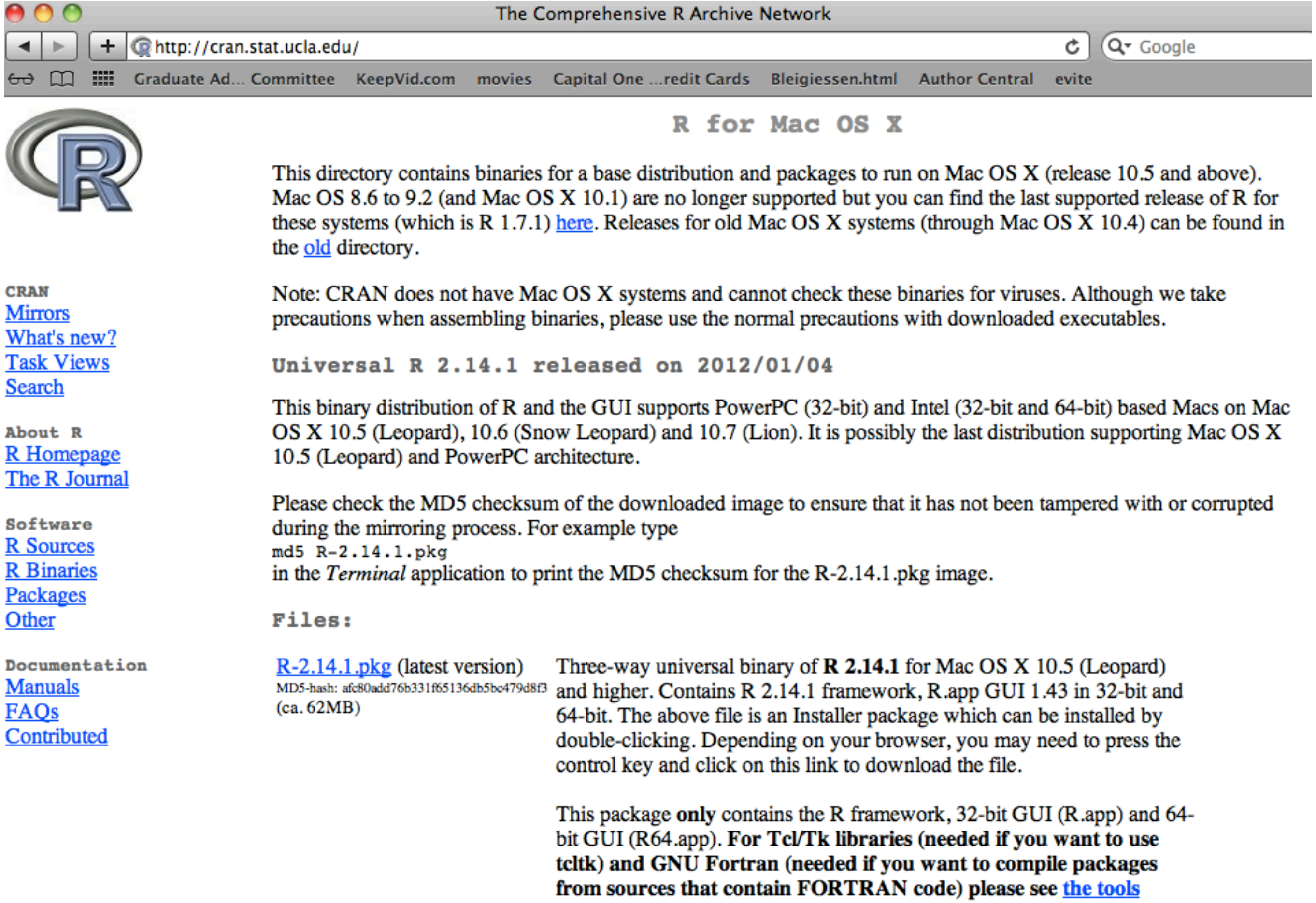
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R for Mac OS X

This directory contains binaries for a base distribution and packages to run on Mac OS X (release 10.5 and above). Mac OS 8.6 to 9.2 (and Mac OS X 10.1) are no longer supported but you can find the last supported release of R for these systems (which is R 1.7.1) here. Releases for old Mac OS X systems (through Mac OS X 10.4) can be found in the old directory.

Note: CRAN does not have Mac OS X systems and cannot check these binaries for viruses. Although we take precautions when assembling binaries, please use the normal precautions with downloaded executables.

Universal R 2.14.1 released on 2012/01/04

This binary distribution of R and the GUI supports PowerPC (32-bit) and Intel (32-bit and 64-bit) based Macs on Mac OS X 10.5 (Leopard), 10.6 (Snow Leopard) and 10.7 (Lion). It is possibly the last distribution supporting Mac OS X 10.5 (Leopard) and PowerPC architecture.

Please check the MD5 checksum of the downloaded image to ensure that it has not been tampered with or corrupted during the mirroring process. For example type

```
md5 R-2.14.1.pkg
```

in the *Terminal* application to print the MD5 checksum for the R-2.14.1.pkg image.

Files:

R-2.14.1.pkg (latest version) MD5-hash: afc80add76b331f65136db5bc479d8f3 (ca. 62MB)	Three-way universal binary of **R 2.14.1** for Mac OS X 10.5 (Leopard) and higher. Contains R 2.14.1 framework, R.app GUI 1.43 in 32-bit and 64-bit. The above file is an Installer package which can be installed by double-clicking. Depending on your browser, you may need to press the control key and click on this link to download the file. This package **only** contains the R framework, 32-bit GUI (R.app) and 64-bit GUI (R64.app). **For Tcl/Tk libraries (needed if you want to use tcltk) and GNU Fortran (needed if you want to compile packages from sources that contain FORTRAN code) please see the tools**

Deal til first ace appears. Let X = the *next* card after the ace.

P(X = A♠)? P(X = 2♣)?