

SOFTWARE

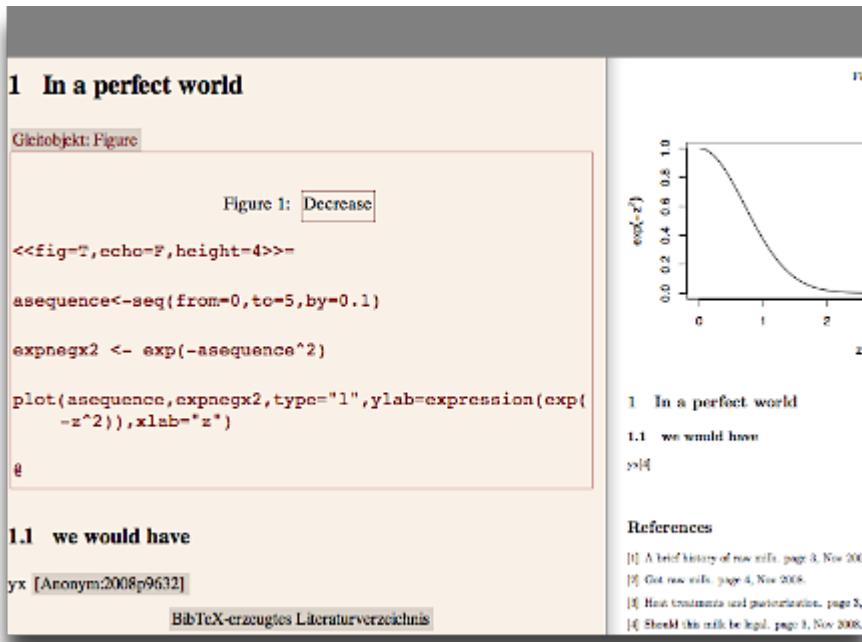
IN A PERFECT WORLD

12.12.2008

of science even computer nerds would need just one single word processor plus a statistics, a graphics and a bibliography program. While under Windows my work horse was Word + Endnote + SAS + SigmaPlot I have been stepping forward under OS X to MacTeX + BibDesk + R (+ thinking about Aabel). [LYX](#) is a nice frontend for [MacTeX](#) with a nice surprise as the package included also [BibDesk](#) that can import [Papers'](#) references.

So the final task was to integrate R into the LYX environment where an online [documentation](#) helped me very much. A hurdle not mentioned there is to select the right style for the R code in the article(Noweb) template: it is “scrap” or “Ausschuss” in the German version ;-)

Nome non est omen – this looks already like a perfect setup (if you have also seen doctoral students tearing with MS Word), yea, yea.



The screenshot shows a LaTeX document with a Noweb template. The document title is "1 In a perfect world". A red box highlights the R code for generating a plot:

```
Figure 1: Decrease
<<fig=F,echo=F,height=4>>=
asequence<-seq(from=0,to=5,by=0.1)
expnegx2 <- exp(-asequence^2)
plot(asequence,expnegx2,type="l",ylab=expression(exp(-z^2)),xlab="z")
```

The plot shows a decreasing exponential curve starting at (0, 1) and approaching 0 as z increases. The x-axis is labeled "z" and ranges from 0 to 2. The y-axis is labeled "exp(-z^2)" and ranges from 0.0 to 1.0.

Below the code, a section "1.1 we would have" is shown with the text "yx [Anonym:2008p9632]" and a link "BibTeX-erzeugtes Literaturverzeichnis".

On the right, there is a "References" section with four entries:

- [1] A brief history of raw milk, page 3, Nov 2008
- [2] Got raw milk, page 4, Nov 2008
- [3] How treatments and pasteurization, page 3, Nov 2008
- [4] Should this milk be legal, page 3, Nov 2008

