Contents

1. Premises — Introduction

2. \TeX at Czech Schools — Just Predilections or Objective Good?

3. Predictions — Where are we now and what may follow
Section 1

Premises — Introduction
Why not just hope that in the flow of getting words on a medium we play our humble role and hope we’re not forgotten but remembered as inspiration.

— Hans Hagen
Premises — Introduction I

\TeX was born at a university, in a Computer Science department, but primarily for one project of the author. Should it be used and taught widely in schools? Such questions have been raised and answered repeatedly in the past [12, 3, 9]. Under which premises and for what purposes should \TeX and friends be used in schools? The right answer is... — that it depends. The decision is not black and white, it depends on school, goals, purpose, tasks, users, and all that changes in time.

- \TeX as a programming (macro) language? Perhaps rather no.
- \TeX as a literate programming paradigm example? Maybe.
- \TeX as a low level typesetting tool? It depends.
- \TeX with \LaTeX markup as reusable scientific authoring markup standard? Probably yes.
- \TeX as a community building tool? Why not?
Premises — Introduction II

Working in the academia for more than quarter century, let us allow to comment on the experience with \TeX, mostly from the Institute of Computer Science and the Faculty of Informatics, Masaryk University in Brno. What is being said in the rest of the paper should be understood in the context; the implications are valid under the premises of the type of school, place, time and other factors.
Section 2

TeX at Czech Schools — Just Predilections or Objective Good?
\TeX at Czech Schools — Just Predilections or Objective Good? I

Historia magistra vitae

— Latin proverb
LET US START WITH SOME HISTORICAL REMARKS. TEX found its way to Czechoslovakia at the end of eighties, and probably first use was by dissidents when preparing books and booklets that were forbidden to be printed officially. For this reason, Czech accents had to be added to Computer Modern fonts [37].

Right after the Czech Velvet Revolution, TEX users became organized mostly in the academia, and The Czechoslovak TEX User Group, ČJ TUG, has been founded in 1991. Vast majority of individual and institutional members seated in academia, and high schools and universities became natural hubs of TEX know-how.
TeX at Czech Schools — Just Predilections or Objective Good? III

To refresh historical memories of that time — Hán Thé Thánh came from socialist Vietnam and started to learn Czech at Czech school; first Internet ADSL 56 kB line from Vienna was rented by Czech universities consortium to share, and \texttt{latex.tex} had 290 kbytes, and was possible to search and edit even on PC XT with 640 kbyte of memory with two floppy diskettes.

As a momentum of \TeX\ use group of entusiastic people decided to organize a \TeX\ conference in Prague: \textit{Euro\TeX} 92 was born, with about 300 participants from all over the world. \TeX\ started to be used for book for database publishing [22].
Figure 1: An example of database publishing workflow
New Czechoslovak variant of Computer Modern fonts (csfonts) were created. Typesetting of math journals switched to \TeX: *Czechoslovak Mathematical Journal*, *Applications of Mathematics* and *Mathematica Bohemica* in Prague, *Archivum Mathematicum* in Brno and *Mathematica Slovaka* in Bratislava. The community started to grow, groups of mathematicians started to typeset their reviews for Zentralblatt Math, and \TeX and \LaTeX courses started to be taught at schools, primarily as a tool for typesetting mathematics. One such a course was even taught at TUG 1993 in Aston.
The first author worked at the Institute of Computer Science of Masaryk University (MU), and supported \TeX’s use at the university. There were series of popular articles about \TeX published in an university bulletin. MU became an institutional member of TUG, and \TeX was actively supported and customized versions of \TeX with Latin2 input were created and compiled on shared installations within university.

The first Computer Science faculty in the Czech Republic — Faculty of Informatics, Masaryk University, was founded in 1994. Jiří Zlatuška, a proponent of \TeX, became its first dean. The faculty logo was designed as a ligature FI on the Escher’s motiv of Penrose triangle by the first author, as seen on Figure 2. The motto related to it is by Blaise Pascal: “The eternal silence of these infinite spaces terrifies me”.
Figure 2: Logotype of Faculty of Informatics: ligature FI, as a symbol of quality typography, was implemented in METAFONT [38]. Computer Modern font letters in the institutional seal of logo were recursively joined by the METAFONT’s ligature mechanism.
\TeX{} at Czech Schools — Just Predilections or Objective Good? VIII

\TeX{} has found its way in the everyday life of the school. On the doors of lecture walls the timetables started to appear as seen in Figures 3 and 4.
**Figure 3: An example of timetable for study group 1MI**
Figure 4: An example of teacher’s timetable generated from faculty administration database
### Telefoniční seznam FI

<table>
<thead>
<tr>
<th>Name</th>
<th>Phone</th>
<th>Extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bártek, Luděk</td>
<td>347</td>
<td>B224</td>
</tr>
<tr>
<td>Bartošková, Lenka</td>
<td>320</td>
<td>B320</td>
</tr>
<tr>
<td>Batůšek, Robert</td>
<td>378, 461</td>
<td>B202, C505</td>
</tr>
<tr>
<td>Biskupová, Kateřina</td>
<td>333, 361</td>
<td>C226</td>
</tr>
<tr>
<td>Botek, Zdeněk</td>
<td>321</td>
<td>B421</td>
</tr>
<tr>
<td>Brandejs, Michal</td>
<td>322</td>
<td>B309</td>
</tr>
<tr>
<td>Brim, Luboš</td>
<td>323</td>
<td>B404</td>
</tr>
<tr>
<td>Černá, Ivana</td>
<td>325</td>
<td>B417</td>
</tr>
<tr>
<td>Dokulil, Miloš</td>
<td>326</td>
<td>B305</td>
</tr>
<tr>
<td>Doleček, Miroslav</td>
<td>350</td>
<td>B319</td>
</tr>
<tr>
<td>Dudaško, Tomáš</td>
<td>380</td>
<td>B317</td>
</tr>
<tr>
<td>Foukalová, Jana</td>
<td>312</td>
<td>B513</td>
</tr>
<tr>
<td>Gaura, Pavel</td>
<td>461</td>
<td>C505</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>Phone</th>
<th>Extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matula, Pavel</td>
<td>464</td>
<td>C504</td>
</tr>
<tr>
<td>Matula, Petr</td>
<td>464</td>
<td>C504</td>
</tr>
<tr>
<td>Matyáš ml., Václav</td>
<td>357</td>
<td>B312</td>
</tr>
<tr>
<td>Matyska, Luděk</td>
<td>310, 213</td>
<td>B515</td>
</tr>
<tr>
<td>Mejlík, Petr</td>
<td>338</td>
<td>B306</td>
</tr>
<tr>
<td>Misákůvá, Miroslava</td>
<td>346</td>
<td>B223</td>
</tr>
<tr>
<td>Motyčková, Lenka</td>
<td>339</td>
<td>B420</td>
</tr>
<tr>
<td>Mráka, Michael</td>
<td>348</td>
<td>B205</td>
</tr>
<tr>
<td>Nechvíle, Karel</td>
<td>362</td>
<td>B315</td>
</tr>
<tr>
<td>Nosek, Jakub</td>
<td>462</td>
<td>C502</td>
</tr>
<tr>
<td>Novotný, Miroslav</td>
<td>341</td>
<td>B416</td>
</tr>
<tr>
<td>Ochránová, Renata</td>
<td>342</td>
<td>B402</td>
</tr>
<tr>
<td>Pala, Karel</td>
<td>344</td>
<td>B302</td>
</tr>
</tbody>
</table>

---

**Figure 5: An example of faculty yellow pages**
\TeX at Czech Schools — Just Predilections or Objective Good? XII

\TeX was used for typesetting of almost all database outputs of faculty administration, including phone directories, course catalogs and materials (Figure 6) and study diploma.
PB029 – Elektronická příprava dokumentů
RNDr. Petr Sojka

Doporučení: Je vhodné mít základy algoritmizace, základní znalosti práce s počítačem v unixovém prostředí (vhodné absolvovat například předmět P004 UNIX) a mít ponětí o formálních jazycích.

The course on electronic document preparation has been designed as a blend of both the theory and the practice [8] of document preparation. The course teaches the students about how information is transferred from the head of an author via a markup language (\texttt{\LaTeX}) to the reader’s head. They are taught about the separation of presentation and content, and about the particulars of both the paper and the digital output formats of PDF and (X)HTML. As far as \texttt{\LaTeX} is concerned, the students learn both the practicalities, such as the typesetting of documents with emphasis on theses, and the theory covering the \texttt{\LaTeX} linebreaking and hyphenation algorithms.
\LaTeX\ at Czech Schools — Just Predilections or Objective Good? XV

Author’s document development cycle shares many principles with the program development — students are taught to use versioning system and automation tools like \texttt{make} for the document development. Simply speaking, every effort was done leading to the environment so that Faculty became safe playground for playing with \LaTeX\ toys and tools, for common good and as part of the study. Faculty students as Hán Thế Thánh then enjoyed using \LaTeX\ as natural choice for typesetting their essays and thesis. Hán Thế Thánh picked \LaTeX\ and recently designed PDF format as a topic of his Master thesis. \LaTeX\ has been extensively used by faculty for their academic production: only exceptionally research publications were not done in \LaTeX. Faculty’s technical report series got its own style with Zapf’s Palatino.
To automate typesetting of longer texts and database publishing, quality hyphenation was desperately needed [27, 28, 16]. The results achieved were reported at TUG conferences, where the first author met Donald Knuth in person, and made a photo seen on Figure 7. Don was offered to come to Brno to receive his twentieth’s honorary doctorate.
Figure 7: Donald Knuth’s finger raised when communicated to Jiří Zlatuška at the TUG 1995 conference in Florida.
TEX at Czech Schools — Just Predilections or Objective Good? XVIII

Figure 8: Donald Knuth’s talk in Brno, 1996
When in Brno, Don saw his Computer Modern fonts on timetables of public transport tram stops, and he was delighted (see Figure 9) to see that fruits of his work are used on the other part of the globe, both in theory and in practice. He mentioned this in his inaugural speech and became the first honorary doctor of Faculty of Informatics, Masaryk University.
TEX at Czech Schools — Just Predilections or Objective Good? XX

Figure 9: DEK's dedication (1996)
In 1996 Thanh defends his masters thesis [31] and program tex2pdf [29] was presented to the TeX community as seen on Figure 10. The program caught the eye of the TeX community; it was subsequently renamed to pdfTeX and its manual was drafted [36].
Figure 10: Richard Kinch (leftmost) and Barbara Beeton (rightmost) at TUG 1996 in Dubna.
The new toy needed willing users to test it, in parallel to day-to-day \TeX\ authoring work. We supported and maintained faculty-wide installations for multiple operating systems that shared the same \texttt{texmf} trees of switchable multiple \TeX\live installations. Twenty years later, there are most \TeX\live versions of the past still installed are ready to use and all faculty can easily go back in time to retypeset materials decades old, saving significantly on author’s time and efforts. Lowering the \TeX\ starting barrier by having the tools ready to use and local community ready to help is the key to widespread the good and effective way of authoring long documents as books or theses. \fithesis\ \TeX\ class has been designed, installed and offered to students. They were given small booklet “We are starting with \TeX\ at FI” on the enrollment day at the Faculty.
TeX at Czech Schools — Just Predilections or Objective Good? XXIV

There were conferences organized by Faculty: Gödel 1996, TSD 1998, and multiconference on Mathematical Foundations of Computer Science MFCS in 1998. TeX was used for typesetting all conference outputs from single textual database. Examples are seen on Figures 11, 12 and 13.
1 Luděk Bártěk
*Masaryk University Brno*
Faculty of Informatics, Botanická 68a
CZ-602 00 Brno
Czech Republic
Phone: ++420 5 41212347
Fax: ++420 5 41212568
Email: bar@fi.muni.cz

2 Robert Batůšek
*Masaryk University Brno*
Faculty of Informatics, Botanická 68a
CZ-602 00 Brno
Czech Republic
Phone: ++420 5 41212378
Fax: ++420 5 41212568
Email: xbatusek@fi.muni.cz

6 Jan Černocký
*Technical University Brno*
Inst. of Radioelectronics, FEI VUT Brno
Purkyňova 118
CZ-612 00 Brno
Czech Republic
Phone: ++420 5 411 491 45
Fax: ++420 5 411 492 44
Email: cernocky@urel.fee.vutbr.cz

7 Victor Croitoru
*"Politehnica" University of Bucharest*
Splaiul independentei 313
Sector 6
77206 Bucharest
Romania
Phone: ++40 1 410 6445

Figure 11: Participants list as an example of output of textual key-value pair database
Figure 12: An example of SLT meetup badges
TEX at Czech Schools — Just Predilections or Objective Good? XXVII

Figure 13: As example of TSD receipts generated from textual key-value pair database
TEX at Czech Schools — Just Predilections or Objective Good? XXVIII

Seminar on Linux and \TeX{}, organized mainly by faculty students Linux and \TeX{} enthusiasts developed not only nice scientific programme, but also brothership icons as seen on Figures 14 and 15.
Figure 14: Logo of Seminar on Linux and TeX (SLT) organized by students of Faculty of Informatics
Figure 15: Icons for SLT meetup
Web information system of Faculty, developed partially also by students of the faculty, generated most of its output via secure independent sandboxed TeX installation. Data for the course catalog were acquired via web forms from teachers in HTML web editor, validated, converted to \LaTeX, and typeset. DTD for the validation of data web form allowed to use special entities &TeX; and &LaTeX; ; Students were motivated to actively participate on the \TeX-related projects. Misáková implemented Gutenberg-like justification in METAFONT in her thesis [11]. Most of N\O\S [39] was programmed in Brno by FI MU alumni Karel Skoupý [15].
Hán Thế Thanh consulted further pdftex improvements [32] with Herman Zapf, and did many microtypographics experiments together with Hans Hagen who came to give special course on Typographic programming to Brno. In October 2000, Hán Thế Thanh finished his dissertation [33], and left Brno after 11 years of studying there. He returned to Vietnam, secured his family financially and worked in academia for a short time there [34, 35].
Figure 16: Hán Thế Thanh studied FI MU in Brno from 1991 to 2001.
As the power of electronic documents and demand for them has been increasing, new course textbooks and interactive teaching materials were created: [4] There were demand for animations in PDF [17], for automation of multiple choice testing [19], and for interactive teaching materials in PDF using JavaScript [18]. \TeX’s notation was so common for University math teachers, that they demanded extension of web forms for course testing developments so that the \TeX formulae could be written in special \texttt{<math>} and \texttt{</math>} element. Math formulae have been rendered on the fly via \TeX followed by \texttt{dvipng} pipe. As examples of other \TeX related software may serve: software for automated scanning and evaluation of testing sheets generated by \TeX [6], version of \texttt{patgen} for the direct use of UTF8 patterns \texttt{opatgen} [1, 21] or software for animations in PDF generated by \TeX [5].
Reuse of textbook content authored in \TeX for multiple output devices was also demanded. We have shown that with \TeX, given that content and form are separated in the markup, several different outputs could be easily generated [25], namely for print, web PDF, web HTML, web and MathML, from one source [24], without monstrous systems of big publishers.

\TeX and Knuth became popular and many software businesses started to move to Brno, which became Silicon Valley of Central Europe. The Czech publisher in Brno decided to translate The Art of Computer Programming, by Faculty alumni, and retypeset it from Knuth sources.
Figure 17: Czech translation of TAOCP Volume 1
TEX at Czech Schools — Just Predilections or Objective Good? XXXVII

With the TEX typesetting know-how students and alumni of Faculty entered several digital mathematical library and related projects, namely DML-CZ and EuDML. A TEX-based workflow for journal publishing has been developed, with an automated export into archival version in the digital library. Archivum Mathematicum journal published by MU uses the tools and workflow for DML-CZ export [26, 20]. Several related tools have been developed: efficient PDF recompression technique [23], MIaS project for TEX math indexing and searching algorithm [10] deployed in EuDML [30]. As blind students needed to study math and TEX authored textbooks needed to be accessible for them support for Czech Braille output has been prepared as a master thesis [7].
TEX at Czech Schools — Just Predilections or Objective Good?

Preparation of TEX related software has been actively supported by topics for thesis and by dean’s program for software development. Second author, supervised by first author of this paper developed new version of \texttt{fithesis} class file \cite{13} with support fine-tuned for all nine faculties of Masaryk University. Thousands of students now author their thesis in \LaTeX{} backed by guaranteed support of FI and discussion group in the university information system.

Another development was triggered by inability of markdown to prevent nonsyllable prepositions in Czech remaining at the end of line. New markdown style that allows to process markdown files by \TeX{} directly, and solves this problem as tiny side-effect, was born \cite{14}.
Fruits of separation of content and form were evident recently, when Masaryk University changed their visuals and style for their documents. Changes in \TeX-based university document production were local and did not affect authors much — mulettre style file, thesis review document template were put on faculty’s \texttt{gitlab} server and smoothed the transition to the new document appearance significantly.

\TeX at Masaryk University celebrates quarter a century of support and development, where students with faculty contributed significantly both to the questions and solutions in the digital typography world and especially within the 40 year old \TeX family.
So, maybe instead of ambitious themes the only theme that matters is: show what you did and how you did.

— Hans Hagen
Section 3

Predictions — Where are we now and what may follow
Predictions — Where are we now and what may follow

Nelson Beebe predicted future of \TeX{} more than decade ago [2]. The world we live now changes, most predictions still hold, some predictions have to be revisited. We have tried to evaluate the influence of the \TeX{} tools and \TeX{} predilections on the thesis writing patterns not only at the FI MU, but within the whole university.

As part of \texttt{fithesis3} \LaTeX{} class the level of support of thesis writing reached a new era [13]. Templates of \texttt{fithesis3} were prepared for each of nine faculties of Masaryk University. Starting student writing a thesis is now matter of several clicks — a thesis template is ready within seconds, even without local \TeX{} installation, which may become later when writer “is hooked” by the beauty of her output. Cloud \TeX{} environments enable much faster learning by example than before, and allows for online consulting, commenting by supervisor or fixing bugs.
Predictions — Where are we now and what may follow II

\TeX{} has been a fixed point in quickly changing environment. Having a community of \TeX{} users is a must. Time and effort of \TeX{} users investments was well spent, even for a thesis project, and on the Faculty number of students that decided to use \TeX{} for thesis is approaching 100\%. Portability, stability, reliability, style uniformity enforced implicitly by visible markup, ease of writing math, and aesthetics and visual qualities of output rocks, compared to WYSIWYG editor alternatives. This is attractive for students, as seen on Figure 18. In parallel, \LaTeX{} class fibeamer has been developed and made available on \TeX{}live and cloud \TeX{} platforms as Overleaf to let students prepare their slides for thesis defense without bothering about visual style of their slides — see Figure 19.
Figure 18: The cumulative number of views of the fithesis3 \texttt{\LaTeX} document class on the online service of Overleaf.
Figure 19: The cumulative number of views of the beamer theme on the online service of Overleaf.
Predictions — Where are we now and what may follow

Masaryk University has about 40,000 students and all thesis defended are mandatorily archived in the university information system. We have used heuristics to detect whether the thesis has been written in \texttt{\LaTeX} or not on the sample of 44,875 theses submitted at MU during from 2010 to 2015. It is estimated that the number of theses written in \LaTeX across the entire Masaryk University steadily increased from 5.67\% in 2010 to 6.28\% in 2014. Extrapolating this trend, all thesis will done in \LaTeX in 768 years, e.g. in 2783 😊.
Predictions — Where are we now and what may follow VI

Theses written using \TeX{} had been awarded grade A statistically significantly more often and grades C and D statistically significantly less often than theses not written using \TeX{}.

The awarded marks are summarized in the Table 1 and in the Figure 20. There is clear evidence that thesis written in \TeX{} get better grading than others. It remain to be verified that the grading of thesis in \TeX{} is better than grading of the state exam of the same person — there is a speculation that ability to concentrate on the content and writing with \TeX{} helped to reach better grading compared to the student ability to study in general (state exam grading).
Predictions — Where are we now and what may follow VII

Table 1: The contingency table of the numbers of marks awarded to theses written and defended during 2010–2015 with Pearson’s goodness-of-fit measure \((E - O)^2/E\) between the expected \((E)\) and the observed \((O)\) numbers of marks awarded to theses written using \(\LaTeX\).

<table>
<thead>
<tr>
<th></th>
<th>Without (\LaTeX)</th>
<th>(E(\text{With } \LaTeX))</th>
<th>(O(\text{With } \LaTeX))</th>
<th>((E - O)^2/E)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>15,476</td>
<td>987.635</td>
<td>1,181</td>
<td>37.858</td>
</tr>
<tr>
<td>B</td>
<td>9,999</td>
<td>638.108</td>
<td>587</td>
<td>4.093</td>
</tr>
<tr>
<td>C</td>
<td>7,926</td>
<td>505.815</td>
<td>381</td>
<td>30.799</td>
</tr>
<tr>
<td>D</td>
<td>4,020</td>
<td>256.545</td>
<td>194</td>
<td>15.248</td>
</tr>
<tr>
<td>E</td>
<td>2,783</td>
<td>177.603</td>
<td>128</td>
<td>13.853</td>
</tr>
<tr>
<td>F</td>
<td>1,979</td>
<td>126.294</td>
<td>145</td>
<td>2.771</td>
</tr>
<tr>
<td>Total</td>
<td>42,183</td>
<td>2,692</td>
<td>2,692</td>
<td>104.623</td>
</tr>
</tbody>
</table>
Predictions — Where are we now and what may follow VIII

Figure 20: A box plot of the grades of theses written and defended during 2010–2015 at the Faculty of Informatics (FI), the Faculty of Science (Sci), and all the faculties of the Masaryk University with and without \TeX.

Predictions — Where are we now and what may follow IX

To conclude, the main lessons taken from TeX at Masaryk University are:

- Role of sustainable support and community building is very important, ideally as preparation of playground students and faculty may play together and have fun.
- Using TeX in daily university agenda is motivating, and is win-win for both students and the Faculty: students learn new things and faculty administration and teaching is effective.
- TeX typesetting kernel gives visually appealing results, often superior compared to other alternatives.
Predictions — Where are we now and what may follow X

- Using of \TeX\ is especially productive and efficient for database and automated publishing, long documents with math as thesis and when there is official discussion lists and support.
- Content and form separation and fixed point of \TeX\ authoring world is another benefit academics recognized in the ever changing world: it allows reusing content in different forms and formats.
- Usage of \TeX\ as a typesetting kernel in a university information system
- Usage for database publishing and documents from primary sources into different (new) formats.
Predictions — Where are we now and what may follow XI

There are new clever students that appear that enjoy joining the community and do new clever projects. This allows the retiring faculty members to rest a bit:
Bibliography I


Bibliography II

Matematická analýza s programem Maple: 2. Nekonečné řady.

Animations in a pdfTeX-generated PDF.

Automation of Typesetting and Scanning of Forms (in Czech).

Conversion of Mathematical Documents into Braille, January 2012.
Master Thesis, Masaryk University, Brno, Faculty of Informatics (advisor: Petr Sojka),
Bibliography III

Theory and practice.
keynote address for the 11th World Computer Congress (Information Processing ’89), August 1989.

TeX in schools: Just Say Yes!

Master Thesis, Masaryk University, Brno, Faculty of Informatics (advisor: Petr Sojka),
Bibliography IV

Typography of Quality in Computer Typesetting (in Czech).
Master Thesis, Masaryk University, Brno, Faculty of Informatics (advisor: Petr Sojka),

\TeX\ in schools: Just say no.

Forma odborných závěrečných prací v \TeX\ [in Czech], 2015 [cit. 2017-05-01].
Bachelor thesis, Masaryk University, Brno, Faculty of Informatics (advisor: Petr Sojka),
Bibliography V

Using Markdown inside \TeX\ Documents.
In Tomasz Przechlewski, Karl Berry, and Jerzy Ludwichowski, editors, XXV Miedzynarodowa Konferencja Użytkowników Systemu \TeX\: Materiały konferencyjne, pages 50–53, 2017.

\texttt{NTS} : a New Typesetting System.

[16] Petr Sojka.
Notes on compound word hyphenation in \TeX\.
Bibliography VI

Animations in PDF.

[18] Petr Sojka.
Interactive Teaching Materials in PDF using JavaScript.
[19] Petr Sojka.
Rapid Evaluation using Multiple Choice Tests and \TeX.

Digitization Workflow in the Czech Digital Mathematics Library.
Bibliography VIII

[21] Petr Sojka and David Antoš.
Context Sensitive Pattern Based Segmentation: A Thai Challenge.

[22] Petr Sojka, Rudolf Červenka, and Martin Svoboda.
TeX for database publishing.
[23] Petr Sojka and Radim Hatlapatka.  
Document Engineering for a Digital Library: PDF recompression using JBIG2 and other optimization of PDF documents.  
http://portal.acm.org/citation.cfm?id=1860563.

Technological Challenges of Teaching Mathematics in a Blended Learning Environment.  
Bibliography X

[25] Petr Sojka and Michal Růžička.
Single-source publishing in multiple formats for different output devices.

[26] Petr Sojka and Michal Růžička.
Single-source publishing in multiple formats for different output devices.

[27] Petr Sojka and Pavel Ševeček.
Hyphenation in \TeX — Quo Vadis?
Hyphenation in \TeX — Quo Vadis?  

[29] Petr Sojka, Han The Thanh, and Jiří Zlatuška.  
The joy of \TeX2PDF — Acrobatics with an alternative to DVI format.  
_TUGboat_, 17(3):244–251, September 1996.

EuDML—Towards the European Digital Mathematics Library.  
Masaryk University.  
Bibliography XII


Improving \TeX’s Typeset Layout.

[33] Hán Thế Thánh.
Micro-typographics extensions to the \TeX typesetting system.

[34] Hán Thế Thánh.
Margin kerning and font expansion with pdf\TeX.
Bibliography XIII

Micro-typographic extensions of pdfTEX in practice.

The pdfTEX user manual.

[37] Jiří Zlatuška.
Automatic generation of virtual fonts with accented letters for TEX.

[38] Jiří Zlatuška.
When *METAFONT* does it alone.
Bibliography XIV


\( \mathcal{N} \mathcal{S} \mathcal{I} \): Programming Languages and Paradigms.

In Euro\TeX\ Proceedings, pages 241–246, Heidelberg, 1999. DANTE.