# ThinkPad-Musuem

## How to start a (retro) podcast from scratch

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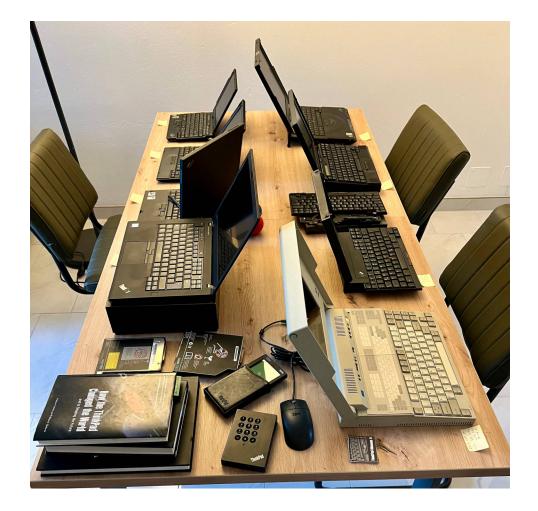
- Christian Stankowic
- <u>@stdevel@chaos.social</u>
- IT consultant and trainer IT
- collects obsolete hardware
- Blogger (<u>cstan.io</u> )
- Podcaster
  - FOCUS ON: Linux ()
  - Faxinformatiker is
  - ThinkPad-Museum

#### ThinkPad museum

- Online museum as blog
- lists collection details
  - **57** <u>different</u> notebooks
  - 3 PDAs
  - 10 Docking stations
  - $\infty$  batteries and cables
- monthly podcast (=)
- thinkpad-museum.com



#### ThinkPad museum





#### Transporting the collection

#### Part of the collection

#### Agenda

- 1. Path to the idea 💡
- 2. Branding and organization 📝
- 3. Tools and workflow 🔨
- 4. Hosting and marketing 🌊

- Why not? ••
- Enthusiasm for the topic
- ThinkPads are still to be found in business and hacker circles
- also pop-culturally relevant
- Eventful history with lots of trivia and curiosities
  - Industrial design
  - Absurd hardware concepts



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- Initial surveys among friends and on Mastodon were optimistic
- Respect for incalculable effort
- podcast friend invited me to this very topic
  - "briefly touching on the topic"
  - HK003 ThinkPads
  - 02:28:55



### ThinkPads 101 💻

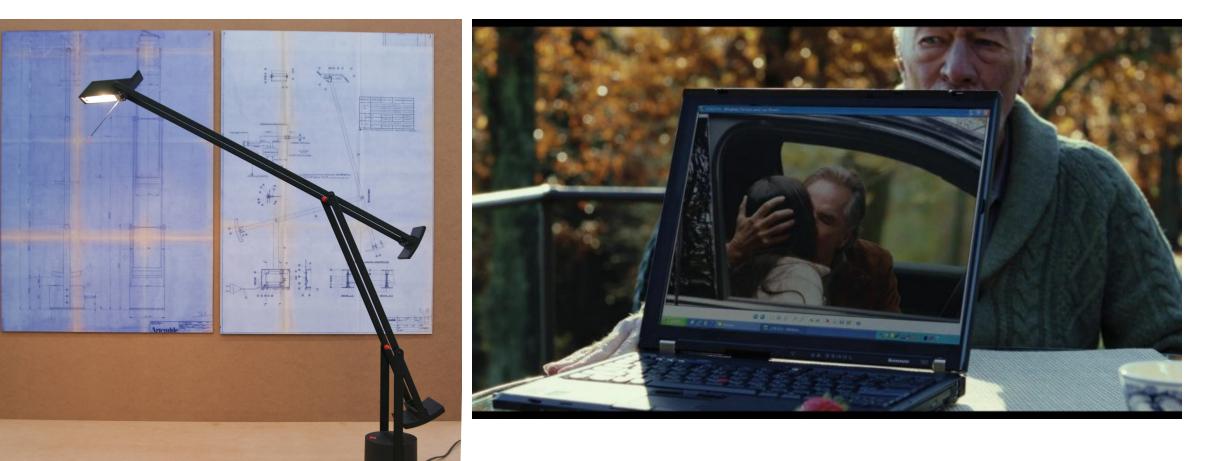
- have been produced since 1992
- stand for durable devices
- timeless design, practical
- many curious experiments
  - PDAs (IBM WorkPad)
  - PowerPC and ARM notebooks
  - unusual expansion modules
  - Notebooks with two displays
- popular due to good Linux support, Rabbit Hole in a nutshell among other things



#### Product design on fleek: IBM PC Convertible Model 5140 (1986)



#### Stylish table lamp, pop-cultural relevance



Knives Out (2019)

## Artemide Tizio (1972) [2], [3]

#### Unusual keyboards and screens





#### ThinkPad 701C (1995)

#### ThinkPad W701ds (2010)



#### Ahead of its time: tablets that no one wanted (yet)



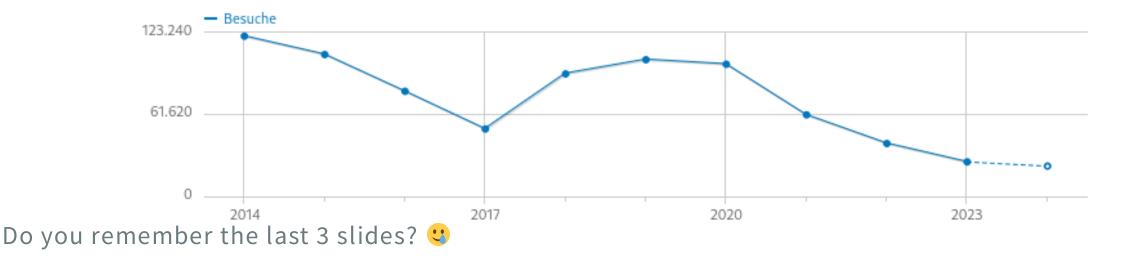


#### ThinkPad 360PE (1995)

#### IBM Leapfrog (1992) [6], [7]

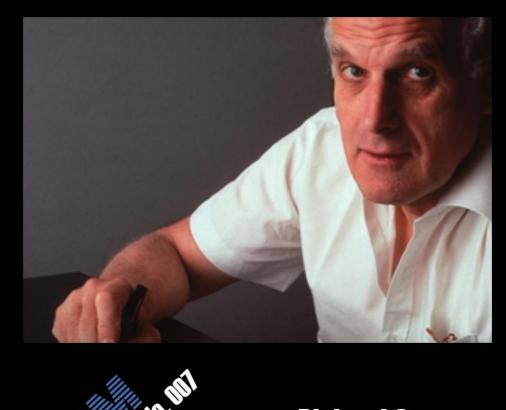
#### Why as podcast?

- People suffer from a decreasing attention span\*
  - Blogs are read less and less often (attentively)
- Video is too time-consuming, <u>already exists</u>
- I wanted to learn something **new**, I like listening to podcasts
  - market analysis has shown that there is no such thing yet
  - deliberately made in German, accepted smaller bubble



**Variety** important right from the start to get people excited:

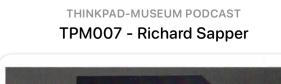
- History Historical context to IBM and co.
- People designers, engineers, community
- Model individual devices and series
- Technology e.g. VGA, Windows 3.x



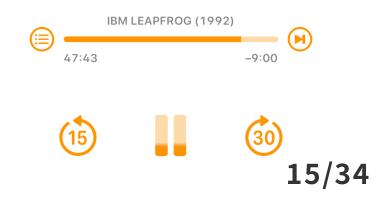


**Richard Sapper** 

- Chapter markers and show notes
  - should be self-evident
- Audio-visual medium
- Usefully supplement audio with chapter images\*
  - e.g. detailed shots of the devices
  - Consideration: Context must also be provided without images
- Transcripts
  - Accessibility and SEO







- ThinkPad Museum was obvious, ThinkPod already taken
- TPM\* as episode prefix
- Cover with TrackPoint for direct association
- Audio scheme
  - Searched catalogs (e.g. <u>AudioJungle</u>) for hours
  - wanted an electronic scheme with iconic ThinkPad 0:0 sounds
  - Musicians in my circle of friends created exactly that 😅





ThinkPad-Museum

0:0

#### Work organization

- Markdown documents in Git repositories\*
  - Repos for episodes, artwork, website
  - Lesseons Learned: Git **LFS** for large images
- Kanban board and issues for episode planning
  - Tags for different topics
- Two Markdown documents per episode
  - Content keywords and chapters ( notes.md )
  - Research notes and source collections ( dossier.md )

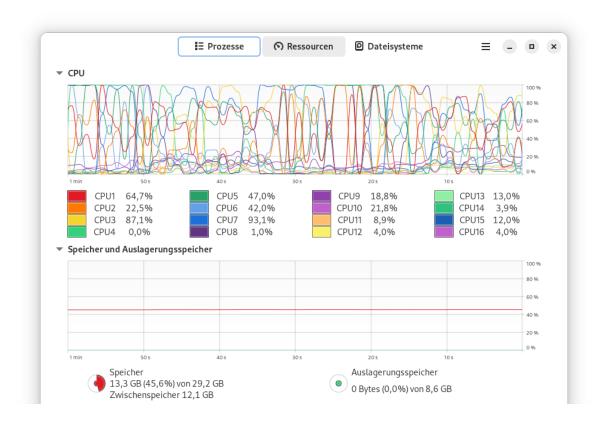
## Work organization

📮 ThinkPad-Museum / episodes-lfs 🏾 Pr	ivat	S Beobachten beende	n 1 🛱 Favorisieren 0 😵 Fork 0
<> Code 💿 Issues 36 🎲 Pull-Reques	sts 🛄 Projekte 1 🛇 Releases 😚 Pakete	🛱 Wiki 🔸 Aktivität 🕂 Mehr hinzufüge	en 🕎 Einstellungen
Labels Meilensteine			Neues Issue
Episoden		🖉 Bearbe	iten 🚫 Schließen 🖞 Löschen 🕂 Neue Spalte
Planung kommender Episoden			
32 Backlog ····	3 Geplant	1 In Arbeit	3 Fertig
TPM??? - Coreboot	• TPM009 - Christian Fey	• TPM008 - 300-Serie	⊘ TPM007 - Richard Sapper
‡41 vorgestern von christian geöffnet <mark> → Backlog</mark>	#5 vor 7 Monaten von christian geöffnet	#4 vor 7 Monaten von christian geöffnet <b>Next</b>	#3 von christian vor 2 Monaten geschlossen
idee technik	menschen	modell	menschen
TPM??? - 2xx-Serie	• TPM010 - Japanische Exclusives		O TPM006 - IBM ThinkPad 700
‡40 vor 2 Wochen von christian geöffnet → Backlog	#37 vor 2 Monaten von christian geöffnet		#2 von christian vor 4 Monaten geschlossen
idee modell	technik		modell
• TPM??? - TransNote	⊙ TPM011 - UltraBay		⊘ TPM005 - 0x17 / Philipp
#39 vor 2 Wochen von christian geöffnet P Backlog	#13 vor 7 Monaten von christian geöffnet <b>Next</b>		#1 von christian vor 6 Monaten geschlossen
idee modell	technik		menschen
○ TPM??? - Mäuse #38 letzten Monat von christian geöffnet			18/

- Focusrite Scarlett Solo Gen 3 + beyerdynamic DT 797 PV
  - something cheaper will do as well (e.g. RØDE NT-USB Mini)
  - I find headsets easier to use than stand mics
- REAPER and <u>UltraSchall</u>\*, <u>Studio-Link</u> for guests
- Scheduling with <u>nuudel</u>
- GIMP for images and artwork
- whisper.cpp for transcripts
- Static website with <u>Hugo</u>
  - customized hello-friend-ng theme

#### Workflow

- 1. Topic selection (from backlog)
- 2. Research (Internet, books)
- 3. Recording
- 4. Editing and post-production
- 5. Chapter markers and images
- 6. Audio export
- 7. Create transcript
- = ~10h per episode 🕥



CPU goes brrr 🖖

### **Editing and post-production**

- Cut speech pauses and spoilers
- Remove background noise
- Normalize -23 LUFS voice tracks
- Activate per voice track
  - VST: ReaEQ (Cockos)
  - JS: Ultrasonic Dynamics
- JS: Activate LUFS Loudness Metering on Mastertrack
- Export with **Meta** information
  - Title, author, podcast, year, category and description

#### Transcripts

- There are numerous services for automated transcripts
  - Cost per minute/episode (or personal data)
- Running a museum is costly enough <a>L</a>
  - also friend of self-hosting
  - Web server and local computing power are already available
- OpenAl Whisper is a free model for speech recognition
  - can be used on your own hardware
  - but requires a NVIDIA graphics card
  - with <u>whisper.cpp</u> there is a fork with CPU support
  - requires ~1.5 times the episode length on my hardware

#### Hosting

- There are numerous hosting offers with fair prices
- In principle, however, a simple web server will do the trick
  - Feeds can also be created with tools like <u>Hugo</u>
  - There are also plugins for common **CMS** such as WordPress
- I came across <u>Castopod</u> in the Fediverse
  - successfully generdsniped the regional Mastodon instance operator
  - first podcast on podcasts.darmstadt.social

#### Castopod

- Open source platform for podcast hosting
- Easy to use WebUI
- supports ActivityPub
  - Can be subscribed to directly from Mastodon and co.
  - Community interaction
- numerous additional functions
  - themes
  - SEO, monetization

# castopod 🛱

hinkPad-Museum Podcast	Bearbeiten
TPM007 - Richard Sap Seite der Folge anzeigen 더	Notizen anzeigen
gen-Dashboard	Bis zu 4000 Zeichen, sei klar und präzise. Die Shownotes helfen potentiellen Zuhörern beim Finden der Episode.
tseite	Beschreibung
je bearbeiten	Schreiben Vorschau B $I := \frac{1}{2} = \mathcal{O}$
	# TPM007 - Richard Sapper
sonen verwalten	
ettbarer Spieler	**Richard Sapper** spielt nicht nur eine zentrale Rolle in der
ettbarer Spieler	Geschichte der ThinkPads, sondern hatte auch einen großen
	**Einfluss** auf die spannende Welt des Industrie- und **Produktdesigns**. Nicht ohne Grund zählt er als einer der
s 🕕 🔶 + 🔸	Irrectivaten Designer der Tweiten Hälfte des 20. Jahrhunderte
	Unterstützt durch Markdown
	Beschreibungsfußzeile (optional)
	Schreiben Vorschau B I 🗄 ½ 🖉 🕼
	Schreiben Vorschau B I ∷⊟ ≟⊟ ⊘ 🖳 # Kontakt
	# Kontakt
	# Kontakt - E-Mail: podcast@thinkpad-museum.de
	# Kontakt - E-Mail: podcast@thinkpad-museum.de - Webseite: https://thinkpad-museum.de/

#### Castopod

- developed in PHP
- can also be hosted via **Docker** or Podman
- Nasty pitfall: <u>missing</u> range-requests <u>support in the pre-built</u> <u>container image</u>
  - absolutely required by Apple Podcasts for episode streams
  - Troubleshooting <u>despite great help</u> was not trivial
  - Lessons learned: <u>Validate feed URL</u>

#### Validate feed

Cast Feed Validator Powered by Blubrry Podcasting

#### **Results for ThinkPad-Museum Podcast**

#### Media/File 🎧

 $\equiv$ 

- Successfully completed SSL certificate tests for latest media.
- Successfully completed media download tests.
- Successfully completed media file content tests.

Show more V Play Most Recent Episode

# Basic Feed Tests Successfully completed feed download tests. Successfully completed XML parsing tests. Successfully completed RSS feed tag tests. Successfully completed Apple Podcasts tests and generated feed preview. Successfully completed Podcasting 2.0 tests.

Show more 
 See Preview

#### Server 曼

- Successfully completed basic server tests.
- Successfully completed caching tests.
- Successfully completed SSL certificate tests for server.

Show more v

#### Website 🖽

- Successfully completed feed website tests.
- Successfully completed episode website tests.

Show more v

### Marketing

- An account on <u>podcasts.social</u> is mandatory!
  - Posts for episodes, but also direct community interaction
  - Best Practice: Pin current episode to profile
  - Build a bubble: Track hashtags, participate in conversations
- Enter the feed in databases such as <u>fyyd</u>
  - there are often special interest projects, such as <u>wisspod</u>
- Participate in other communities (e.g. <u>thinkpad-forum.de</u>)
- Attend conferences like this one (duh!)
  - People love stickers
- Collaborations with friendly podcasts

#### Analytics

- Self-hosted <u>Matomo</u> for the **website** (clicks/sources)
- Mastometrics for Mastodon\*\* interactions\*\*
- OP3 (Open Podcast Prefix Project) for episode downloads
  - Client information about redirects, requires feed customization



#### Analytics (Mastometrics)

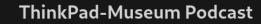


ThinkPad-Museum thinkpadmuseum@podcasts.social

Last updated 42 seconds ago



Analytics (OP3)





#### Analytics (OP3)



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#### **Conclusion and outlook**

- Producing podcasts is fun
  - there is a niche bubble for everything
  - but the podcast scene is happy about curious topics
  - Just try it out diversity is good!

- MRMCD 2024: ThinkPads -Eingabegeräte und Kuriositäten 2. Artemide Tizio <u>(Teil 2)</u> 🔐
- Froscon 2024: ThinkPads -**Geschichte und Nerdkultur (Teil** 1)
- BW099 Ein denkwürdiges Notebook 👻
- HK003 ThinkPads
- ThinkPad sounds
- ThinkPad <u>museum</u>

- 1. IBM PC Convertible Model 5140
- 3. ThinkPad T61 (Knives Out)
- 4. ThinkPad 701C
- 5. ThinkPad W701
- 6. IBM Leapfrog
- 7. ThinkPad 360PE

# Thank you for your attention