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Title: **Before and Beyond Embedding: A Reference Fable from the National Library of Technology in Prague**

Topical area: **Storytelling for Sustainability and Solidarity**

**Abstract:**

*Rewind the tape telling the story of reference services at the National Library of Technology (NTK) in Prague to 2009: a closed stacks specialized library with a long, complicated institutional history re-opens its arms to the public with a new “open stacks spirit” in an innovative building—an architectural jewel. Students (80% of all visitors) and the public embrace an inspiring space in the heart of a STEM campus and it rapidly fills with activities ranging from conferences to art exhibitions to concerts. But lost in this mélange are modern academic reference and information services. Despite being governed and financed directly by the Czech Ministry of Education, the narrative of value to academic stakeholders is shyly whispered. “We’re the flagship of Czech librarianship,” we gloat. Nothing, and almost no one, shouts: “We can help you succeed in your academic journey.”*

*Fast-forward to 2017. In our paper, we will relate how we are weaving together the first fabrics of academic value narratives. Our story has not been linear; threads related to internal strategic planning, creation of intranets and reusable staff educational modules entwine with other threads (user-based online development, social media statements, “backward designed” instructional efforts) which we discuss using notable examples. Common to all narratives are themes of academic success, rigor, and individual engagement; internally in relation to ongoing staff development and externally, with intimate involvement (even bowling!) with colleagues and students. While our campus may not yet be fully ready for such approaches, we are now strongly declaring our value as essential players in the successful education of students.*

**Keywords:** embedded librarianship, agile development, backward instructional design, services design, narrative

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**Prologue: Before Embedding**

We begin our tale in Prague, Czech Republic. The “city of miracles” (Kiš, 1997, p. 111).

It’s early 2013, nearly twenty-four full years after the Velvet Revolution. Václav Havel is dead; Miloš Zeman assumes the Czech presidency. Winter is long and cold.

In the snowy center of Prague-Dejvice, anticipating a merger with the University of Chemistry and Technology, Prague (UCT Prague), our library proudly publicizes a new mission statement, ending with a bold resolution: “We are continuously educating ourselves and assist others in

their ongoing development. We want NTK to be the perfect academic library supporting the transfer of innovation into practice” (NTK, 2013a).

The goal of these two short phrases is clear: kickstart the library back into its appropriate *narrative* position following several decades of severance from daily academic activities (NTK, 2013b). To weave NTK directly back into the fabric of the academic life of its surrounding campus, particularly at the staff level. The underlying message: *your work within the library does not occur in a bubble; you must learn about how your work fits within a dynamic larger academic whole.*

UCT Prague’s Center for Information Services (CIS) team, followed one year later by the Institute of Organic Chemistry and Biochemistry of the Czech Academic of Sciences (IOCB AS CR), drove this academic reintegration process. Asked about their primary motive for integration in a 2014 interview, IOCB’s director and strategic director emphasized the social aspects of integration: “The beautiful library building stands right between our Institute and the Institute of Chemical Technology and can become a meeting place” (NTK, 2014). But they also discreetly indicated their desire for *more*, including sophisticated reference and information services:

The old model of the library as just a building is over; integration and interpersonal relationships are the next step[s]....We look forward to new services: specialized searches, patent searches, assistance in reformatting publications from one journal to another, conference/presentation support, and more” (NTK, 2014).

Figure 1. 2014 interview with IOCB senior leaders



In this brief case study, we explore how our reference and information services team has been reinventing this *more*, shifting its narratives at both the level of story (*what* is narrated) and of discourse (*how* we narrate) (Chatman, 1980, p. 19). At the story level, we describe the creation of themes emphasizing agility as well as academic success (excellence), rigor, international competitiveness, individual engagement, and learning. At the discourse level, all of our stories

have involved an essential shift: we now present our services using vocabulary and messages that make more sense to our users, employing both “small” narratives surrounding individual user tasks (*need help writing your thesis?*) to “grand” or “meta” narratives regarding fundamental values and beliefs shared within academia (e.g., *research integrity*) (Polkinghorne, 1988, pp. 14-15). Technology has supported our efforts at times, but the medium is not the *entire* message. Face-to-face interactions with students and faculty, both in and outside the classroom, play even more essential roles in our efforts—still in their initial stages.

### **Narrative Shift: Focus on Users, not Ourselves**

Prior to 2013, NTK staff did enthusiastically embrace various forms of modern academic reference and information services, staying aware of international trends and implementing them without official ties to campus partners. However, our partners were very skeptical of these pre-2013 efforts. They objected (and, in some cases, still object) that, with our “general” librarian education and experience, we were not equipped with any substantial subject knowledge in the related fields, nor adequate experience with the international academic STEM research and publishing environment. Rightly so.

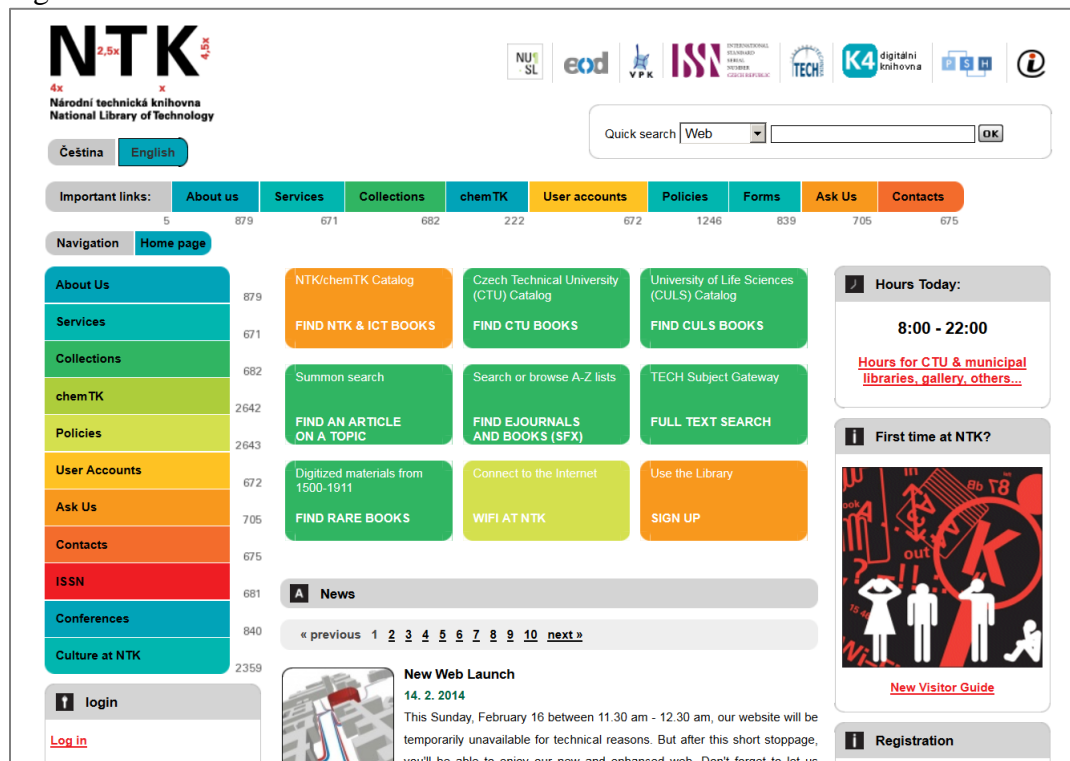
We have begun to address staffing concerns, hiring new personnel with STEM backgrounds and conducting extensive internal training about STEM practices for STEM and non-STEM staff alike. But even with new staff and improved competencies, we are keenly aware of a deep narrative disconnect we are working very hard to improve: the students and faculty we serve often still do not realize the full extent of our capabilities in terms of reference and information services. Chodounska (2016, pp. 105-106) discusses the local student perspective.

In the past, we failed—and are now just beginning to do better—at providing the appropriate value narratives to our stakeholders of various kinds. And we would argue this is not just a local phenomenon, but (as illustrated by the very fact this IFLA section is focused on storytelling) global in scope.

Why? In retrospect, both the small and grand narratives about our local initiatives were focused on our own mirror image: our own vocabularies, our own institutional reflections, our own professional educational paths instead of expressing concepts users understand from their day-to-day academic tasks (learning, writing, publishing).

In our local case, this is illustrated clearly by the pre-2014 version of our website (Figure 2), characterized by a competition of internal interests and projects (logos, top right) and three separate institutional catalogues (boxes, center top). The only reference service mentioned in this “above the fold” first page view was a fee-based bibliographic retrieval service, mysteriously labeled: *We are looking for data on a subject*. What’s the main storyline here, from the user perspective? Dare we say: go to Google?

Figure 2. Pre-2014 website



Today, our online efforts, including social media channels, are—for the most part—user-oriented, with library terminology trimmed away whenever possible (e.g., we say *Ask Us*—not *Ask a Librarian*). We focus on guiding users to the information and services they need. Internally, our narratives for training staff on continuous development are guided by the agile manifesto, itself tightly focused on flexibility and user needs (“Manifesto for Agile Software Development,” 2001). Krueger (2014) presents a discussion of our internal agile narratives.

We inform ourselves about our users through traditional mechanism (surveys, focus groups) and have additionally conducted two formal ethnographic studies—importantly, not limited to our own users only (Chodounska, 2016; Krueger, 2016). The goal here is *informed* agile design, starting with user needs and moving backward from that point. Not surprisingly, these studies have revealed the true depth of the local canyon between library-centered assumptions and actual user needs.

The narratives we have subsequently developed, specifically related to reference and information services, are encompassed by our reference team motto: *To inspire and demystify*. Note the purposeful lack of any kind of *what* here; we need the flexibility to expand our inspiring and demystifying efforts to whatever our users require in the future—services we cannot, at present, even imagine. This narrative framework is *extensible*.

Notable themes for students here are *academic success (excellence)* and *learning*. On our STEM campus, student-to-professor ratios and attrition rates for Bachelor students can be very high (UCT 2016, p. 26; Czech Technical University, 2016, p. 50). The concept of undergraduate—particularly writing—support on our campus is still in its infancy. See Chodounská (2016, pp. 49-52, 61-64.) for a discussion of the specific cultural context. With Bachelor and Master theses

required for almost all study tracks, we are able to fill a distinct service gap, using thesis writing consultations as the starting point for discussion of concepts related to information literacy.

Figure 3. Promoting thesis assistance on Instagram



To make ourselves seem attuned with these student patrons (many of whom are twenty-five and younger), we purposefully paint a *fresh and friendly* picture of ourselves. This is an intentional effort in order to counteract the stereotype of the “grumpy old library shushing lady,” still very much alive on our campus.

We emphasize peer-to-peer relationships in our work with students in order to emphasize empathy—not professorial authority—in our interactions. This peer-to-peer emphasis additionally aids us in holding the politically-sensitive line between the universities we serve (theme: *professors, mentors are the experts*) and the library (theme: *we offer support to the academic experts, freeing them to focus on teaching and research instead of commonly-asked writing and research questions*).



Figure 4. 2017 mobile-ready web, with Knowledge Navigation Corner banner

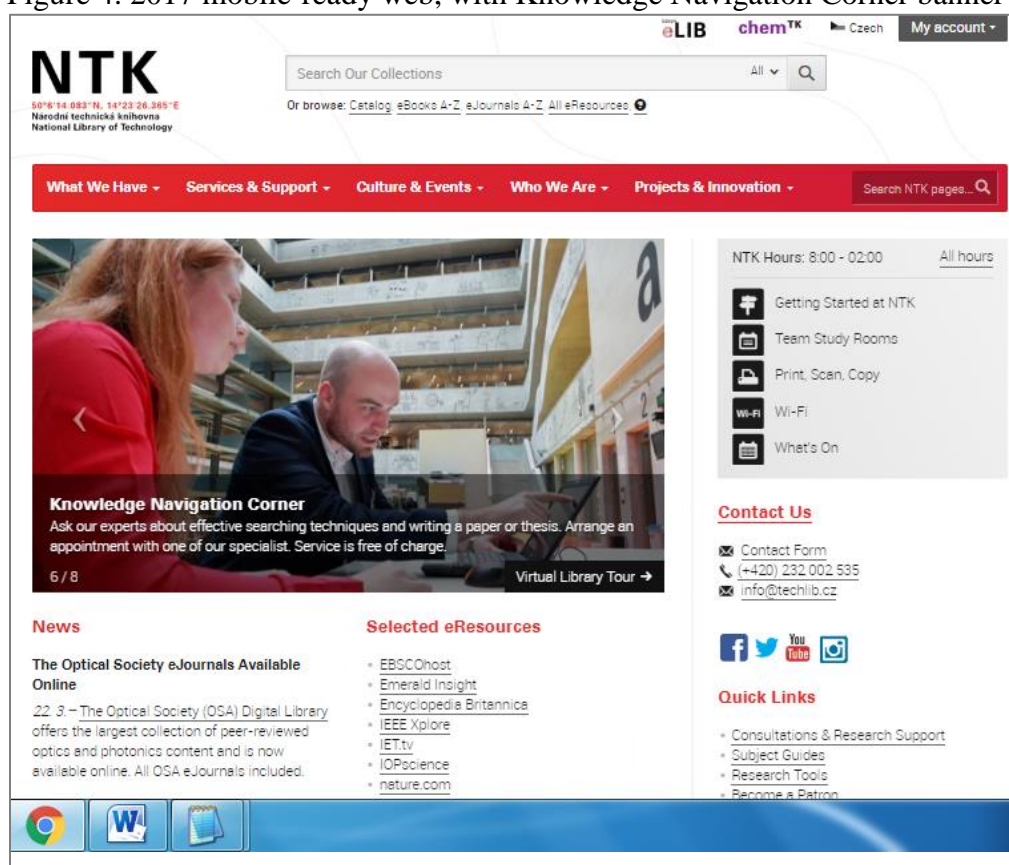


Figure 5. NTK Reference Team photo, 2016



## Narrative Shift: One Story Does Not Fit All

Clearly, as touched upon above, the reinvention of our reference and information support narratives has involved different stories, different discourses, for different stakeholders—including internal stakeholders. A continuously-evolving mixture of small and grand/meta narratives is essential to our efforts.

### Internal Stakeholder Narratives

In our local case, we have had much work to do internally in terms of creating narratives about the value of reference and support services and the shift to a user-centric view of our activities. For library leaders, we introduced the grand term “core business”—user services—around which (ideally) all other activities would focus. This is still a difficult concept for an institution with very divided departmental activities to embrace; however, this *core business* narrative remains essential as it was when we introduced the term to this environment in 2013.

In order to better-communicate core business concepts and, over the long term, facilitate transfer of knowledge about our user-based themes and activities among reference staff, we launched a wiki-based intranet in 2014 together with a biweekly user support forum, open to anyone in the library interested in reference and information initiatives requiring support from other departments. Reusable staff educational modules are now additionally available on Moodle. Messaging on internal communication mechanisms is celebratory in nature, emphasizing the increasing number and variety of interactions with our end users and providing reports (and photos) of instructional sessions and other activities.

Figure 6. Sample intranet announcement

The screenshot shows a web page from the National Library of Technology (NTK). The header includes the NTK logo, coordinates (50°6'14.083"N, 14°23'26.395"E), and the text "Národní technická knihovna National Library of Technology". The page title is "Nejtek 2017/57: Spolupráce se středními školami na vzestupu". The main content area features a large photo of students in a classroom, with text describing a partnership with Park Lane International School (PLIS) and English International School Prague. The text mentions that PLIS has agreed to a partnership with NTK, and that NTK will provide support for the school's activities. The text also mentions that NTK will provide support for the school's activities, including providing materials and equipment. The text concludes by stating that NTK is proud to be part of the school's success and that it will continue to support the school's activities in the future. The page also includes a sidebar with links to "Web NTK", "Telefonní seznam", "Odkazy", "Návody", "Týmy a skupiny", "Zápisy z porad", "O NTK", "Vnitropodnikové předpisy", "Základní dokumenty", "Organizační struktura", and "Wikipedie".

At the individual level of sharing and producing narratives among reference team members, reference staff participate in a weekly English language ideas exchange forum entitled NTKyou, (Choudounská & Krueger, 2016) in which more experienced team members introduce best practices from around the world and from higher-level strategic interactions with professors and administrators from across campus.

Key narratives emphasized include those we stress with our external stakeholders:

- Academic success (excellence): Team members are encouraged to conduct their own research and to publish.
- Rigor: Team members, when producing research outputs, are held to the highest standards, with all outputs going through internal peer review.
- International competitiveness: Global trends are monitored and discussed for potential applicability in our local setting.
- Individual engagement: Team members actively participate in agile projects and are reviewed based on their levels of performance.
- Learning: Every week new topics and ideas are introduced, including STEM-specific content.

Experiences from individual consultations on different topics are shared across the team at (also weekly) *metaconsultation* sessions. Narrative emphasis: continuous learning, peer-to-peer support and knowledge transfer, specific STEM search terms and strategies.

### ***External Stakeholder Narratives***

Ideally, every story we tell should be custom-tailored. This is possible in face-to-face and email conversations and we place a high emphasis on personal relationship development with our users of all stripes. Even our instructional offerings are tailored to each and every audience; while some content is reused, every session is unique and prepared keeping evaluations from previous sessions in mind.

Figure 7. Peer-to-peer bowling with STEM scholars





Online, we lack the ability of commercial entities to buy advertising space which would reach individual users who don't know about us yet, spreading our stories more broadly while harnessing new technologies made so famous in recent election cycles (Grassegger & Krogerus, 2017). These challenges, however, impact all libraries. For example, our links in Google Scholar to resources are extremely valuable, guiding our users to content they require at the *point of need*, but currently we must educate our users that 1) Google Scholar exists (this is no longer a given in the Facebook world) and 2) library settings must be enabled. Tighter integration with commercial search engines and social media platforms, however, would likely require a level of global coordination yet not reached by library professionals. Until this happens, we feel strongly that our narratives must be spread to K12 educators and students—the earlier students are exposed to academic integrity and media literacy concepts, the better chance we have of keeping their attention as they proceed through their future academic careers.

Below, we highlight selected narratives for some categories of external stakeholders. In most cases—particularly students and professors—we plan to create even more discipline-specific value narratives in the future.

### *International Community*

We aim to be a world-class academic library, producing our own high quality research outputs, and this is the narrative we are communicating to our colleagues nationally and, increasingly, internationally.

Regarding the international community on our campus, one-quarter of our ca. 25,000 registered patrons and one-third of all library visitors in 2016 were not Czech citizens.

### *Domestic Library Community*

We are attempting to refurbish the reference librarianship narrative anchored in obsolete national job tables by introducing and actively promoting international definitions, competencies, and standards for academic librarianship. We are, nevertheless, often astounded with the resistance of the majority of our Czech colleagues to our attempts and proposals. Recent examples:

NTK argues for the concept of reference librarian as is known from North American librarianship. The positions that we traditionally refer to in Czech libraries as "librarians" are, in the US libraries, either library technicians or library assistants and thus are unacceptable for use in the Czech Republic. No one wants for most of the staff of Czech libraries to become technical staff or library assistants, instead of librarians, overnight (personal communication, May 2, 2017).

I disagree with NTK's theses about reference librarians. We are in the Czech environment, so let's be Czech. We should stick to our definitions: a reference librarian is a librarian providing reference services (personal communication, May 2, 2017).

### *K12 Educators*

Our primary narrative for K12 educators is that we are their partners in educating internationally-competitive students. We began these initiatives with The Austrian School in Prague in 2014 and

have since extended our efforts to several private schools partnerships. This fall we are launching a public partnership, with the government of suburban Prague, to train teachers. Sample messaging:

We are here to assist you in identifying and assessing gaps regarding information readiness and tech-awareness. Our aim is to help you overcome any insufficiencies we identify together.

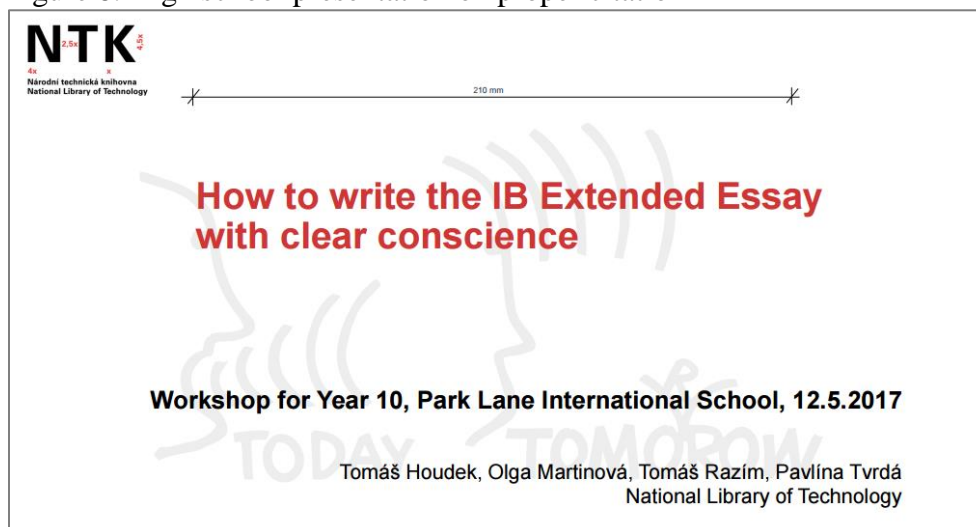
Acting in synergy with you, we are capable of providing your students with a wide range of custom-tailored consultations and workshops on topics including (but not limited to):

- Advanced (not only electronic) information search and working with emergent information resources and tools
- Preparation, writing, and presentation of academic/research papers
- Validation of information resources and proper citation management
- Publishing ethics
- Optimal use of emergent learning technologies, information resources, and tools
- Information support for the International Baccalaureate Diploma Programme (NTK, 2017).

### *K12 Students*

In the classroom, our narratives focus on utility for certain tasks, such as successful completion of papers required for graduation. To reach students, we use more informal, ironic language while concurrently emphasizing grand narratives (rigor, writing with integrity).

Figure 8. High school presentation on proper citation



### *Professors, PhD Students, and Postdoctoral Researchers*

For higher-level academics across disciplines, our current narratives focus on time savings (particularly in terms of editing English language content) and support of research integrity and

academic rigor metanarratives. The buzz phrase we currently use to envelop our efforts is *scientific writing in English*, since many of our partners at this level must publish in English. We help them achieve *international competitiveness*.

At the small narrative level, we emphasize the term *catalysis* instead of embedding, because embedding implies observation (in the sense of embedded journalism) rather than active partnership, engagement between peers—we want to extend *beyond* embedding. Our goal in interactions with our academic partners is to discover and then, together with them, pilot new service initiatives, a recent example of which being the 2016 launch of full-semester seminar entitled *Gaining Confidence Presenting in English* followed by a 2017 next steps seminar, *Scientific Oral Presentations*. Another highly-specific recent example of collaboration is development of a cross-publisher analysis and list of punctuation standards for mathematical equations.

Figure 9. Teaser for writing in English support

The image is a screenshot of a website titled "Communicating Research in English". At the top, there is a navigation bar with four links: "Home", "Courses", "Collections", and "WWW". Below the navigation bar, the main content area starts with a paragraph: "NTK is pleased to provide comprehensive support for effectively communicating the results of your research in English including:". This is followed by a bulleted list of six items: "Demystification of (and strategies for) academic reputation optimization online", "Learning how to deliver oral presentations in various settings and for different kinds of audiences", "Navigating the process of working with editorial teams, including communications with native and non-native English reviewers", "Proofreading and editorial feedback on language articles, conference papers, and other outputs written in English", "Thinking critically about bibliometrics, scholarly publishing mechanisms, and offers—including those by so-called 'predators' and aggressive commercial entities", and "Our services are intended to supplement your collaborations with university mentors and colleagues in a manner tailored to your individual needs." At the bottom right of the page, there is a button labeled "Next >".

## Communicating Research in English

[Home](#) [Courses](#) [Collections](#) [WWW](#)

NTK is pleased to provide comprehensive support for effectively communicating the results of your research in English including:

- Demystification of (and strategies for) academic reputation optimization online
- Learning how to deliver oral presentations in various settings and for different kinds of audiences
- Navigating the process of working with editorial teams, including communications with native and non-native English reviewers
- Proofreading and editorial feedback on language articles, conference papers, and other outputs written in English
- Thinking critically about bibliometrics, scholarly publishing mechanisms, and offers—including those by so-called "predators" and aggressive commercial entities

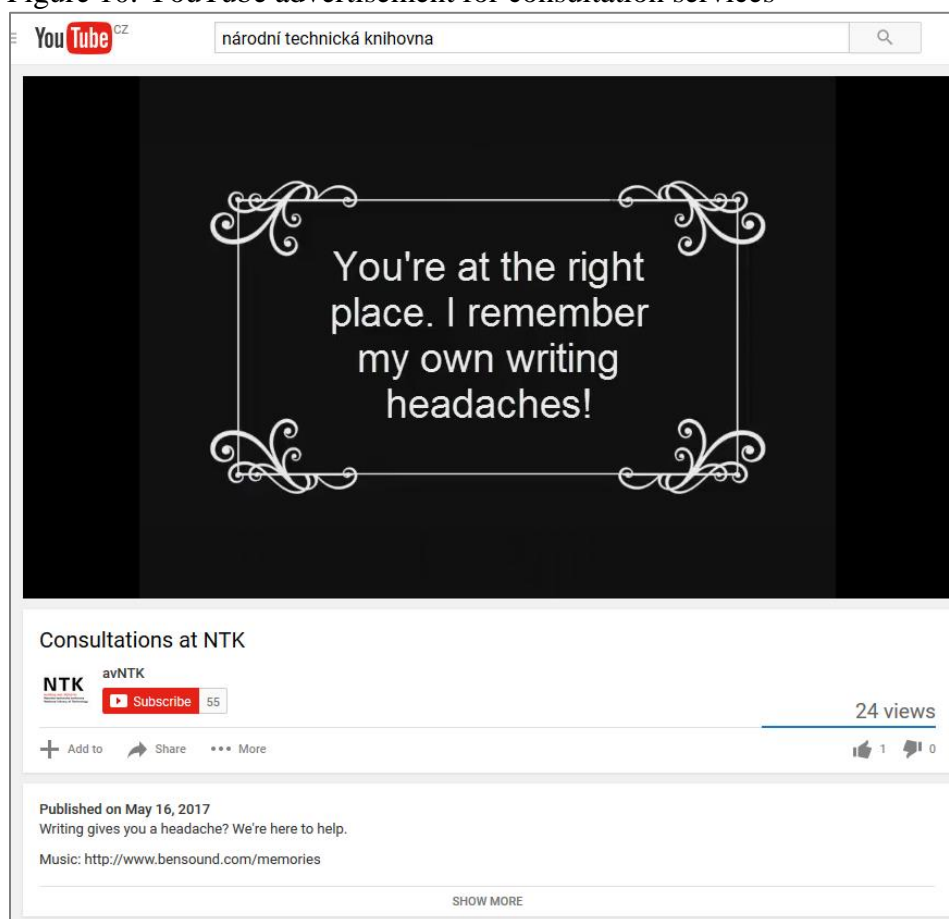
Our services are intended to supplement your collaborations with university mentors and colleagues in a manner tailored to your individual needs.

[Next >](#)

### *Bachelor and Master Students*

As noted in the user-center narratives section, our current stories focus on academic success and our peer-to-peer approach in solving specific academic challenges, such as writing a thesis.

Figure 10. YouTube advertisement for consultation services



## Measurable Results

Our storytelling efforts are bearing fruit, with increasing demand for our consultation and instructional services.

Table 1. Sample interactions with patrons, 2014-present

	2014	2015	2016	2017*
Consultations	76	84	118	77
Lectures/Workshops (L/W)	1	4	22	27
Participants in L/W	20**	80**	343	466

\*As of 19.5.2017

\*\*Estimation



Our scientific writing course is now an accredited PhD course for the Faculty of Civil Engineering at the Czech Technical University; we have additionally contributed to over twenty journal papers published in English language journals.

One hurdle we face in our efforts is a fragmented local academic terrain characterized by competition between schools—and even other libraries located on campus. Despite this, inroads into the fabric of campus academic life have clearly been achieved.

Regarding national accreditation and pan-European higher education standards, we are ahead of the local curve, positioned with strategies and metrics ready for assessing student and teaching success, research integrity, and international student support.

## Conclusion

Our own ethnographic research projects have revealed, unsurprisingly, that for the students and researchers we have studied, library narratives do not come first to mind for research and writing support (Chodounská, 2016, pp. 105-109; sample quote: “I’m used to searching for information on the Internet by myself, so I’m quite self-sufficient” [p. 55]).

While we must conduct additional research across broader populations, we believe we still have a long way to go in ensuring our stories reach their targets.

Our narratives will continue to evolve and we have no illusions about our competitors, the large commercial entities dominating the online information space. Our sole advantage lies in our ability to expand our *inspiring and demystifying* efforts to whatever our users require in the future, going beyond embedding as *catalysts* of educational change and improvement.

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