

EDUCATION IN LIBRARY ABOUT INFORMATION SAFETY IN THEORY AND PRACTICE

New Technology in Education

8th December 2014

Information society

- Economically (Machlup, Porat, Drucker) - from material to intellectual property
- Technologically (Shannon, Mansuda) - impact of IT on society, incl. increasing importance of IL/IT literacy
- Sociologically (Castells, Bauman, Bell) - incl. Digital Divide
- Historically (McLuhan, Toffler) - changing role of information in history

- Definitions of information society = growing importance of IT and information in all spheres

Can we speak about information society today?

- The Czech republic is atheistic country, but...



IL and IT in information society

- “To be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate and use EFFECTIVELY the needed information“ (American Library Association, 1989)
- IT simplify many activities with information
- IT = tool => can be (mis)used
- Information is key, but using it is changed by IT => IL closely connected with IT
- Both sides of coin in MIL lessons in libraries

Simplifying

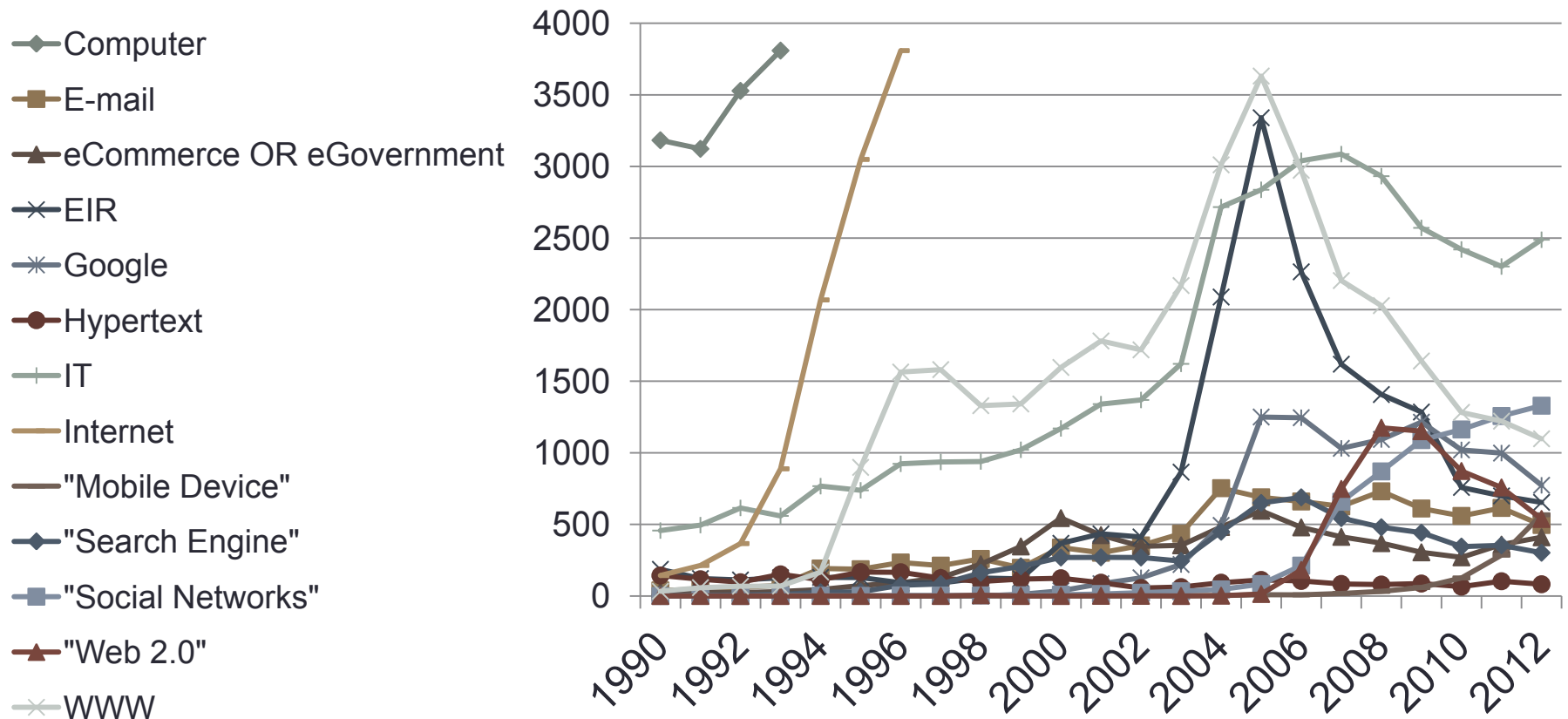
$$\begin{aligned} J(\boldsymbol{\alpha}) = & \sum_{i=p+1}^{k_0-1} \left\{ y(t_i) - \left(\sum_{j=1}^p a_j y(t_{i-j}) + \sum_{j=0}^q b_j u(t_{i-j}) \right) \right\}^2 \\ & + \left\{ \tilde{y}(t_{k_0}) - \lambda(t_{k_0}) - \left(\sum_{j=1}^p a_j y(t_{i-j}) + \sum_{j=0}^q b_j u(t_{i-j}) \right) \right\}^2 \\ & + \sum_{i=k_0+1}^n \left\{ \tilde{y}(t_i) - \Delta_y(t_i) - \left(\sum_{j=1}^p a_j (\tilde{y}(t_{i-j}) - \Delta_y(t_i)) + \sum_{j=0}^q b_j u(t_{i-j}) \right) \right\}^2 \end{aligned} \quad (7)$$

A presentation slide titled "active learning" is displayed on a screen in a classroom. The slide has a light blue background and the text "active learning" is centered in a dark blue, serif font. The screen is on a stand, and the classroom background is dimly lit, showing bookshelves and a patterned rug.

active
learning

Changes of IT

- Confront document analysis with changes of IL definitions
=> minimal



Crucial changes of IT related to IL (Helvoort)

- “content integration (federated search engines)
- amateur publishing (user generated content)
- use of social networks to find information
- personalization and push technology
- loss of context / fragmentation of information”
- => should be reflected in IL (use of this = condition to effectively cooperate with information in information society)

Using IT without IL

- Research of using IT (especially children) - often limited and not effective
- But users are convinced about their knowledge - do not want to learn more
- Hard to show that it can be better with IL - everyday work with user



I
T

I
T

Future

- Information Society can't be "Information" without IT
- Countless and unpredictable changes of IT in last 10 years
- We can not predict what the future of technologies will be
- Develop the established definitions (to avoid "reinvent the wheel")

Information safety in library?

- Part of MIL => mediate appropriate resources (trustworthiness)
- Important topic to educate - 12 % 9-16 year Europeans some harm on the Internet (Livingstone et al.)
- Library in cooperation with school accepted (Livingstone et al.; Martin and Rice)

Attitudes of Children's Departments of Czech Libraries to the Information Safety

- Focused on children
 - my interest
 - their vulnerability and attitudes forming
 - the best available target group
- Education through public libraries to increase internet safety of children – focused on key issues
- Limits of formal education => cooperation with non-formal
- Benefits depend on quality at both sides
- Non-formal education – more space for active learning
 - Knowledge
 - Skills
 - Attitudes
- Case study – Czech republic (specific)
- Potential and real situation



Potential of libraries in education about IT threats

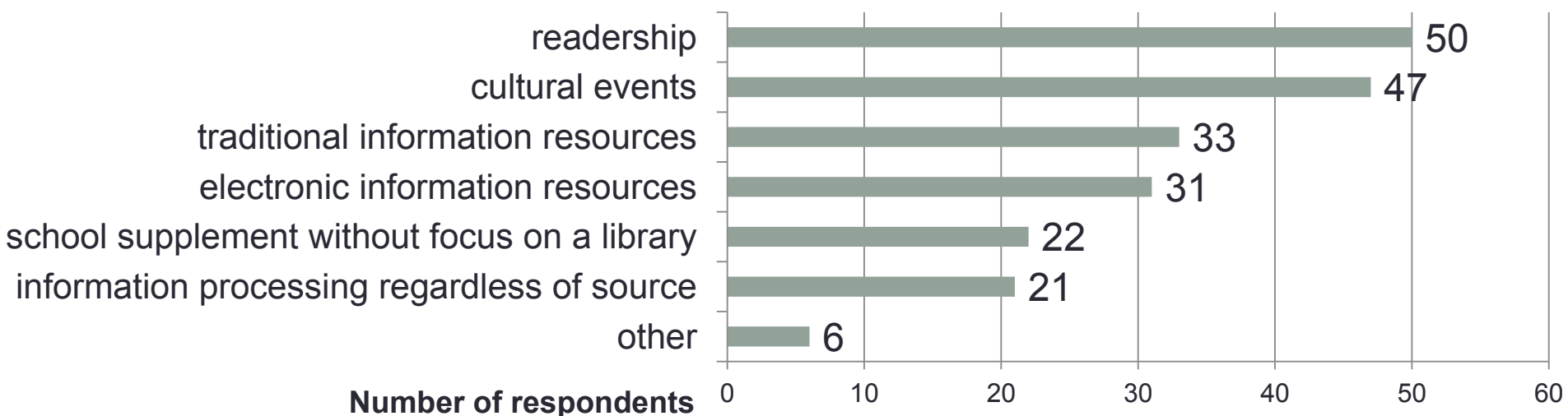
- Free Internet for public by law, assisted on request
- Traditionally credible
- Thick nationwide network of collaborating institutions
- Non-formal education to MIL (+ umbrella organizations)
- Services to public without restriction
- Long-term relationship with the local community X centralized initiatives for safe Internet
- Permanent availability, but not necessary
- Usually established cooperation with (more) schools

Empirical data from my research

- Despite the potential something not working
- No research linking education in libraries with internet safety – this begin with mapping the situation
 - Quantitative pilot research
 - On-line questionnaire
 - Open from the 8th to the 19th of August 2011
 - Librarians addressed via 7 electronic conferences
 - 261 responses, 62 responses from institutions offering the education for children (Q5)

Educational activities and their content

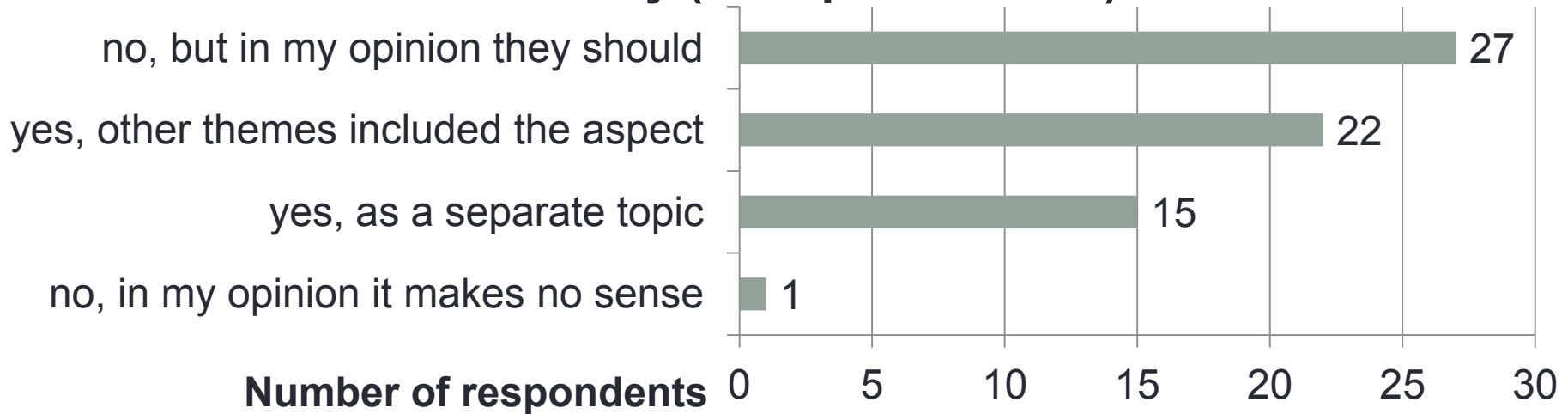
Content of children education



- Multiple answers of institutions with children education
- “Other” most frequently the cooperation with schools
- Lesson for schools (Nejezchlebová, 2010): almost all libraries organize lessons connected to their services
- Libraries offer enough but mostly traditional activities

Topics of internet safety

Awareness of any children education focused on internet safety (multiple answers)



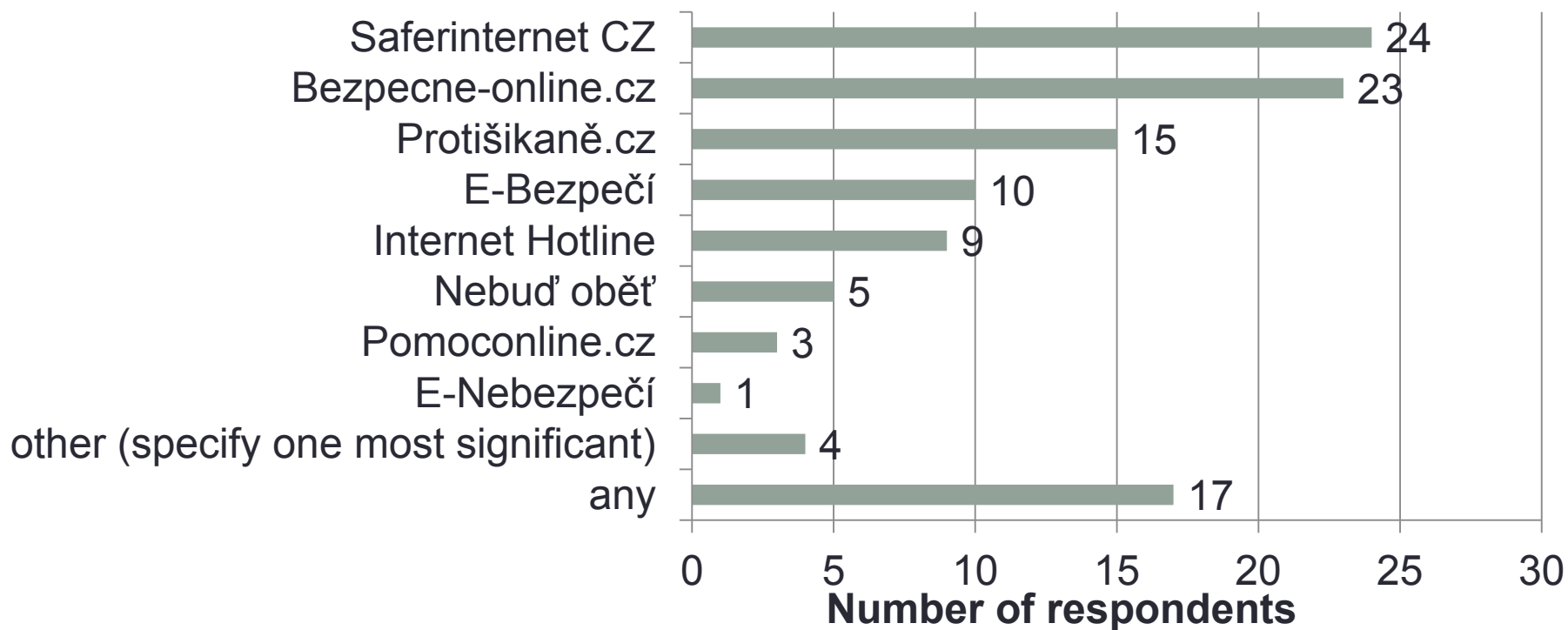
- Education for all focus groups – any “no, in my opinion it makes no sense”, 38 beginning “yes”
- Restricted on children – one “no, in my opinion it makes no sense”, less than general beginning “yes”
- Both similar frequency – mostly a lecture once or twice a year

Attitudes to education of children about information safety

- Q8 Do you think that libraries should engage the internet safety in their educational activities for children?
- Positive response from 58 employees of institution offering education for children
- Negative responses:
 - 7 from all 180, none knew any online educational project
 - 4 employees of institution offering education
 - 1 employee of institution offering education for children

Awareness of educational project devoted to child internet safety

Knowledge of online long-term educational projects focused on child internet safety (multiple answers)



Comments from respondents

- “I think that the problem of child internet safety **should be integral** to information literacy courses starting with **grade school**”
- “As the director of a library I am aware of the unsatisfactory state of providing appropriate education in an area, covered by the questionnaire, by our institution. It is **not** at present **in our personnel resources or among our priorities**. When it comes to the education of children in this area I assume that it is covered **in primary school as part of the standard program** and if not then the problem lies with the curriculum. This does not, of course, mean that libraries are not appropriate public educators in matters of ‘internet safety’.”
- “It is not possible to warn about this issue at every event – it should now **belong to basic social habits** like for instance street manners, it is **already just plain part of life**.”
- “(...) In our city we do so in cooperation with the police. **It is a necessity**.”
- Majority interested in the topic but don’t know how to go about it

Discussion – what the questionnaire did not cover

- The potential not fully realized – further research
- Some possible reasons:
 - Librarians' loud complaints: “The employees of child sections are convinced that they should primarily focus on areas other than ICT, including internet safety.”
 - Analogy with research of Czech teachers (Zounek, 2009): “Often librarians stay away from topics that are connected to technology out of fear that they would lose their authority because kids are often more knowledgeable of ICT.”
- Problematic fields: opinions of librarians, status of children (services X protect), uncertainty of an approach
- Librarians should help where they can - education

LESSON OF SAFE COMMUNICATION FOR PRIMARY SCHOOL

Process of action research

- Goal: contribute to the solution of practical problems and show possible change by inclusion libraries into education about information safety
- All 4th and 5th grades from the Masaryk primary school in Polička came through the created lesson of safe communication
- Lessons as an action research
 - Participated observation
 - Fast feedback from children at the end of the lessons
 - Analysis of documents created by children
 - Interviews with 6 people

Cooperating school

- Polička: small city (approx. 9000 people), library cooperating with many local schools
- Masaryk primary school
- Meeting with deputy director for the first degree organized by library
- Collective meeting with almost all teachers in the first degree (topic + cooperation in the library)
- Training for teachers about IT threats and safety measures
- Interest of teachers surprisingly positive

Lesson for children with participated observation

- 70 minutes, 5 classes, 135 pupils
- Both 4th grades on 9th April, two on 5th grades 23rd April, one 5th grade on 21st May
- RWCT type learning strategy: ERR framework – same as previous lessons for school in library
- Basic risks of communication over the Internet with someone unknown + warning signals

Evocation by brainstorming

- Methods of Internet communication
- Some papers stormy reaction
- Categorization with functions
- In the most possibility to communicate with unknown => competition



Realization of meaning - competition

8 ⇒ K Identification of pupils without names

V12

jsi Holka KLUK?

Are you girl, boy?

co tě to zajímá ?

What do you care?

bluk

Boy

Jaký máš vlasy ?

What is your hair?

Hnědý a Ty?

Brown and you?

-- jako f

-- Like you

kde bydlíš ? jo

Where do you live? Yeah

na Helence a Ty?

(street name) and you?

~~XXXXXXXXXX~~
v České Republice In Czech republic

Aha

I see

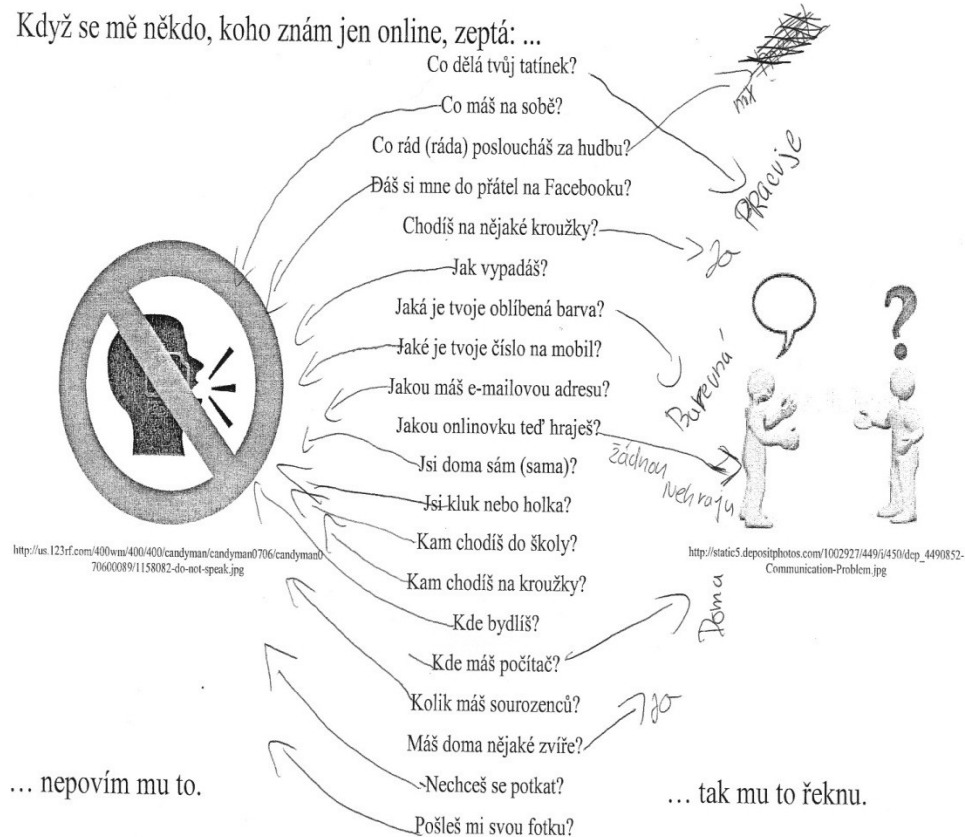
znám tě !!!

I know you!!!

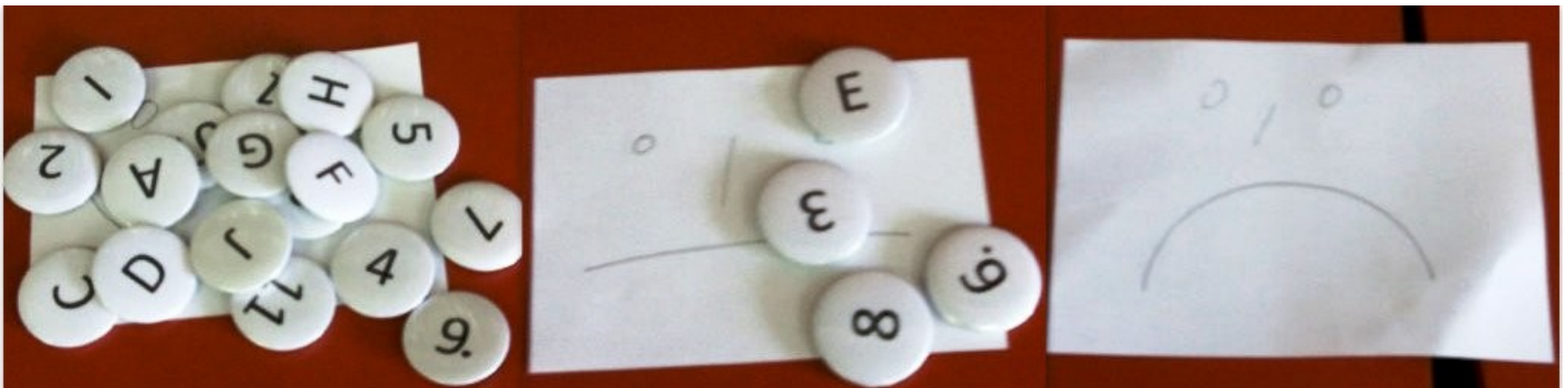
- 2 groups in 2 rooms messages over the "Internet"
- No names (identifiers = badges) and e-mails, only true answer
- Goal to find out as much as possible identities and not be detected
- Usually do not end up
- Evaluation of the rules on the Internet

Reflection – table with Internet questions

- Decide what to answer
- Some examples in lesson, the rest for discussion at school
- Goal:
 - For one question possible many answers
 - To unknown better non-identifying
 - Stress warning questions
- When leaving badges used for evaluation lessons



Feedback from children after the lesson



Document analysis

- All documents (222) left by pupils after the lessons
- SPSS
- Identification of class, pupils (anonym) and documents
- Topics, their order, (un)identifying by answer, topic in depth (more questions)
- Accepted the simulation (form and content of communication) – topic similar as on the Internet according to other researches
 - the most common: sex, adress, hair, age, clothes
 - the most identifiable: sex, hair, clothes, brothers and sisters, sport

Collected document

10 → J

Z8

V jakým roce seš narozen(a).
2002
Já taky!

Hraješ Minecraft?
Jen občas

Jakou máš barvu vlasů?

Úádhernou
BARVU VLASU !!!!!
SVĚTLE HNĚDOU

Seš kluk? j0

JA

~~MAJÍ HEZKÉ OBLEČENÍ~~
JAKÉ MÁŠ BARVU VLASŮ?

Z8

černouh

A jaký máš, oblečení?
MÁM HEZKÉ OBLEČENÍ
TOX MÁŠ ZA TÝ VLAST

V JAKÉ ~~MÁŠ KALHOTY?~~
ŘADĚ SEDÍŠ U
OKNA, D P
U DVEŘÍ

MAJÍ
HEZKÉ OBLEČENÍ

Interviews on information safety education in libraries - methodology

- Goal: barriers in information safety lessons in library and their solutions
- 360-degree feedback - stakeholders:
 - library
 - school
 - family
- Six semi-structured interviews in summer and autumn 2013 (6 weeks to 5 months after lesson)

Barriers in library

- Benefits for the library unseen

=> research-based, solution of social demand

*"In order to teach things missing in the schools for which there is a **demand**, which undoubtedly Internet safety is (...) I have started to realize from that in last few years that it really could be a one of the **main functions** of libraries, (...) the **educational...** " (DL)*

- Limited budgets

=> teaching librarian as a good expense, enthusiasm - teacher can help with didactics

*"city administration and school leaders (...), all the library activities immensely appreciate and conversely it is another **added value.**" (L)*

Barriers in librarians

- Resources (knowledge, time, materials...)
 - => management support, expert consultations
 - "I often hear that the library manager (...) says, and now you will educate, (...) but the one has **not the conditions** to the work. (...) he has not his office to prepare the lesson. He has not dedicated part-time, easily. Because there are not money for this in the budget." (L)*
- Generation differences => fear to teach
 - => (often) no local choice, most specialized in information
 - "Despite I'm the younger generation of librarians, (...) I needed some support like the other." (L)*
 - "These literacy course and, with the safety, (...) this belongs to the library. **To whom else?** " (M)*

Barriers in school

- School should educate rather than library
 - => primary intermediation, library 1st for solution, teachers only limited additional education

*"I do **not know** how in **depth** they would be able to bring this. They teach you Excel and these text programs, but this [information safety] I do not know" (DS)*

- Interpersonal relationships in library and school
 - => willingness to cooperate for children good

*„Important was that you did well **explained** why we educate children, the way we want to do it and (...) what will be the results. I consider the communication as the most important, personal meetings." (L)*

Barriers in teachers

- Quality uncertainty
=> feeling of the importance, small local competition, substantial content and form

*"I think the teachers were pleasantly **surprised** that even that kind of issue that they always feared and shunned, can be conceived in this form. Which is **understandable** for them, they see that the children are having **fun**, but it really has the **knowledge** outputs and it has the skill fundamentals." (L)*

- Time from school schedule
=> links to school instruction, due to children behaviour

*"Perhaps it would be even better if the lesson (...) was the first two or three hours, so we had the option to **continue** in the classroom (...), because the next day, when we return to it, that's not quite it." (T)*

Barriers in children

- School should educate rather than library

=> in library possible expressing lack of knowledge

*"I think the great advantage of this lesson is that children actually **find** everything **themselves**. That they try it and realize how to behave and maybe more realize that how they behave now, can have its consequences."* (L)

- Librarian cannot bring anything new

=> some pupils huge, some small knowledge about threats,
discussion to realize aware behaviour

*"They themselves were surprised (...) They probably **do not normally realize** this when sitting at the computer. They something write and think, so what, I send it. But that they retrospectively realize"* (T)

Barriers in family

- Parents should educate rather than library
 - => not all parents interested in all parts of children life, not all know enough about the Internet
 - "What parents are interested in **everything** taught **in school**?" (DL)*
 - "I think that such **consultancy** maybe for the kids is **missing** (...), because probably not every parent is versed at this..." (DS)*
- Attention of children and parents
 - => motivated child attracts parents
 - "Your **questions** were better than my thinking. Because they lead me **far away**" (M)*

Aim of education

- Start with 9-10 years
- In connection to IL
- Discussion, real behaviour, possible consequences

*"The whole Internet safety is relatively trivial, it's not anything different than as **don't talk to strangers.**"
(DL)*

*"Children are not stupid but the **perception of danger** is something that is **taught**, right, and especially for something as innocent-looking as the computer itself."
(DL)*

- Topics: sharing of personal information, netiquette, identity theft and cyberbullying
- Helping point

Conclusion

- Here beginning of the problem – librarians are open but not
- Library traditionally teach discrimination between (un)trustworthy information sources = basis of many Internet threats
- Libraries + schools = cooperate to help with Internet safety
- Choice in problem and in education => more people accepting help
- Barriers will or will not appear, but solution too
- Positive experience - all wanted extending
- All feel importance of the topic and benefits (e.g.)
 - for family: discussion and better rules in behaviour
 - for school: distant topic solved by information experts
 - for library: important position in information society (effective solving of the social demand)

=> any library can try



THANK YOU FOR YOUR
ATTENTION.

kovarova@phil.muni.cz

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