MASARYK UNIVERSITY

Research in cooperation with companies

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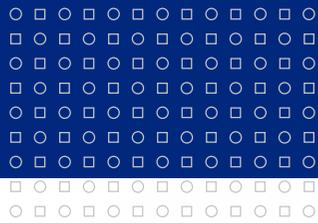
3-year project „Experimental research of ICT user behavior in the domain of security"

- Cooperation on the university level

IRTIS Interdisciplinary Research Team on Internet and Society

us☺

CROCS

Centre for Research on Cryptography and Security (Faculty of Informatics)

Institute for Computer Science (university service provider)
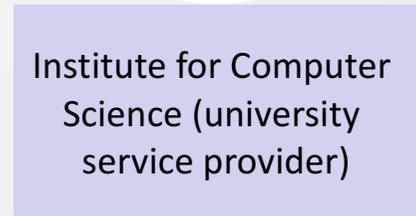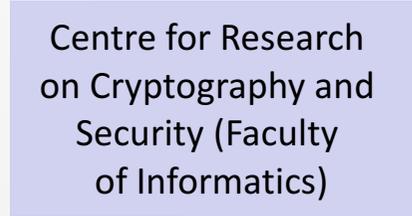
- Cooperation with companies
  - international online security software producers
  - international business management sofwtware producer
  - local security encryption solutions provider
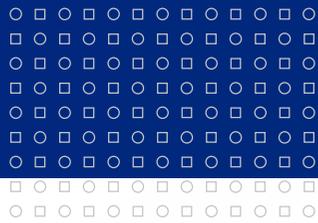
Various challenges with each partner

	Us	University partners	Companies
Goals of the research	Academic: knowledge, papers	Academic/practical	Practical: Quick decision & results
Ethical standards	ethics		Internal policy, results
The understanding of research methodology			
Why we need careful sampling procedure	☺	somewhat	☹
Why we need enough participants	☺	☺	☹
Why we need questionnaires?	☺	☺	somewhat
Why we need "long" questionnaires	☺	somewhat	☹☹
What is considered "long" questionnaire	100+ items	40 items	10 items
Why we need to measure „same thing" by multiple items	☺	somewhat	☹☹☹
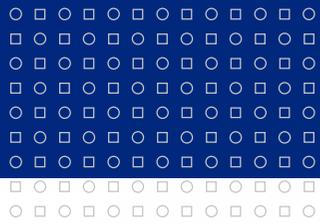
Various challenges with each partner

	Us	University partners	Companies
The understanding of research implementation			
How long does it take to prepare research design	week(s)-month(s)	day(s)	day(s)
How long does it take to prepare questionnaire	week(s)-month(s)	day(s)	day(s)
How long does it take to implement the research into the system	day(s)	week(s)-month(s)	week(s)-month(s)
The control over data collection	low		high
The understanding of data analysis			
How long does it take to analyze the data	week(s)-month(s)	day(s)-week(s)	day(s)
How complex analyses/results are expected	multivariate analysis	descriptives, bivariate analysis	frequencies
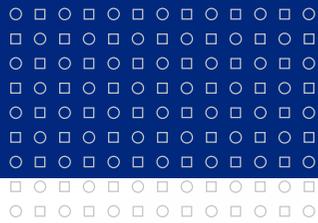
When it/What went „wrong"

- **The case of too big company**
- long process of deciding and/or approving any action
  - many actors, departments, not informed about each other
- communication through the „middle (wo)man" (manager)
  - low priority & long answering time
  - typically only partially answered questions
    - this caused problems during data cleaning procedures which took extremely long time because of it
- extremely low control over the whole process
  - how the data were collected & coded; what types of data could be collected; what implementation phase is currently being done…
  - for errors in the data: how they happened and how were they corrected
  - → need to trust rather than check it yourselves
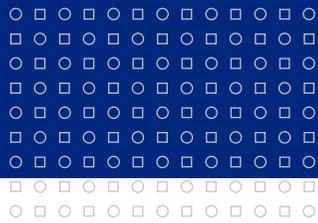
When it/What went „wrong"

- **The case of too small company**
- long preparation period of the project prior to its actual start – but in small companies, the priorities change quickly
  - what is interesting for them when writing the proposal may no longer be interesting when the project gets funding
- one person doing all the related work, while still working on other tasks
  - other tasks have usually higher priority
  - reluctance to do the „extra" work – with checking the implementation, updating the implementation, controlling the data collection etc.
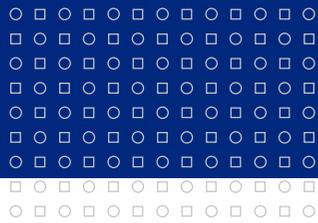
Tips for the future cooperation projects

- consider potential misunderstandings and try to prevent them before the start of the project

- long preparation period
  - signed contract (proposal attachment)

- be careful about different meanings of same terms (eg., „long" questionnaire) – define everything and add concrete figures or dates
  - eg. the number of items in the questionnaire, dates for providing final version of research design, dates for implementation..

- it is crucial to have at least one person in the company who is interested in the research and who can motivate other employees (eg. developpers) and keep the agreed time schedule
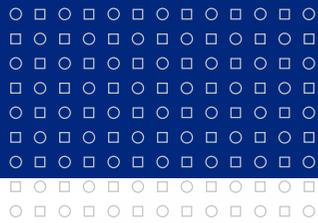
Tips for the future cooperation projects

- make sure that the research is interesting for the company
  - stress out potential practical benefits
  - if they will not see the benefits right away or will not understand why some part of the research is needed, their motivation will drop quickly

- explain that the company and researchers have different goals
  - practical vs. academic
  - both goals have to be respected on both sides

- explain what does it mean to publish a paper based on the project
  - negotiate in advance what data will be ok to use in the paper (internal policies? Know-how? Internal stats? The name of the company?)
  - should the company comment on the paper(s)? What if they won't like it?
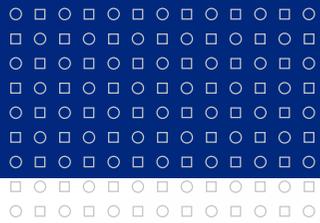
- Cyberpsychology: Journal of Psychosocial Research on Cyberspace

- http://cyberpsychology.eu/index.php
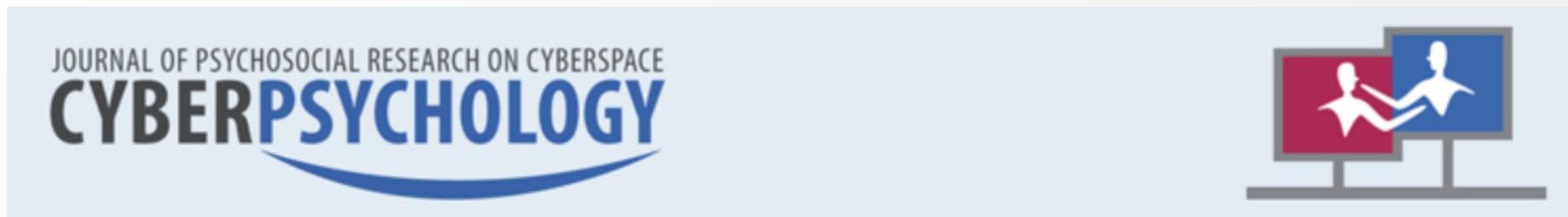
- Cyberspace konference, Brno, November

- http://cyberspace.muni.cz/