

CS-490

Business design for IT services

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Cursus	Sem.	Type
Computer science	MA2	Opt.
Cybersecurity	MA2	Opt.
Mineur STAS Chine	E	Opt.
SC master EPFL	MA2, MA4	Opt.

Language of teaching	English
Credits	3
Session	Summer
Semester	Spring
Exam	Oral
Workload	90h
Weeks	14
Hours	3 weekly
Courses	3 weekly
Number of positions	

Summary

We teach how to "design" an IT supported business initiative. We use insights from philosophy and psychology to concretely understand business models and analysis tools. Students work in groups on a project of their choice. Concrete fieldwork outside class and substantial readings are required.

Content

Individually, the students have to read the documents listed below. They make a synthesis of their contents. They need to apply the concepts presented in these documents on case studies and on their own project.

The students work, in groups, on a project. They:

- (1) imagine a new (IT) service to develop,
- (2) identify and analyze the relevant segments,
- (3) validate their model with real customers and potential partners,
- (4) define the qualitative and quantitative goals for the new (IT) service.

To represent their business idea, the students use Trade Your Mind - a web-based business modelling service,

Keywords

Business services, IT services, business design, innovation in startups, revolutionary ventures and corporate initiatives; entrepreneur profiles.

Business design, service design, house of quality, SEAM modeling (eco-system, supplier-adopter relationship, motivation models)

Segmentation, value networks, PESTLE analysis, 5 forces analysis, core competency, coopetition, blue ocean, resource based modeling, transaction cost.

Integrated marketing concept, SWOT analysis, strategy canvas.

New technology adoption, crossing-the chasm, decision making units.

Pricing strategy, cashflow management, break-event time

Psychological types, epistemology, ontology, axiology (ethics and aesthetics).

Learning Outcomes

By the end of the course, the student must be able to:

- Create a precise and detailed description for a new business design
- Analyze environmental as well as organizational factors in a business design
- Design a business model in details (ecosystem, value, finance)
- Assess / Evaluate alternative business and technical strategies

- Synthesize multiple marketing theories (from seminal publications)
- Represent the key concepts of a business design (ecosystem, value, finance)
- Interpret evidences
- Investigate innovative views of a business design

Transversal skills

- Collect data.
- Access and evaluate appropriate sources of information.
- Write a scientific or technical report.
- Make an oral presentation.
- Summarize an article or a technical report.

Teaching methods

Problem-based teaching + group work

Resources

Bibliography

Bhide, A. (2000). *The Origin and Evolution of New businesses*: Oxford University Press.

Hauser, J. R., & Clausing, D. (1988). The house of Quality. *Harvard Business Review*.
<https://hbr.org/1988/05/the-house-of-quality>

Golnam, A., Regev, G., Ramboz, J., Laprade, P., & Wegmann, A. (2011). Aligning Value and Implementation in Service Design - A Systemic Approach. *International Journal of Service Science, Management, Engineering, and Technology (IJSSMET)*, 3(1), 19-36.

Porter, M. E. (2008). The Five Competitive Forces That Shape Strategy. *Harvard Business Review*.
<https://hbr.org/2008/01/the-five-competitive-forces-that-shape-strategy>

Levitt, T. (1960). Marketing Myopia. *Harvard Business Review*.
<https://hbr.org/2004/07/marketing-myopia>

Prahalad, C., & Hamel, G. (1990). The Core Competence of the Corporation. *Harvard Business Review*.
<https://hbr.org/1990/05/the-core-competence-of-the-corporation>

Brandenburger, A. M., & Nalebuff, B. J. (1995). The Right Game: Use Game Theory to Shape Strategy. *Harvard Business Review*.
<https://hbr.org/1995/07/the-right-game-use-game-theory-to-shape-strategy>

Hagel, J., & Singer, M. (1999). Unbundling the Corporation. *Harvard Business Review*.
<https://hbr.org/1999/03/unbundling-the-corporation>

Kim, W. C., & Mauborgne, R. (2004). Blue Ocean Strategy, *Harvard Business Review*.
<https://hbr.org/2004/10/blue-ocean-strategy>

Tools: Trade Your Mind – Business modeling tool on the web
www.tradeyourmind.com

Note: the list is non-exhaustive.

Ressources en bibliothèque

- [A Framework for Modeling Value in Service-Oriented Business Models / Golnam](#)

- The origin and evolution of new businesses / Bhide
- The structure of "unstructured" decision processes / Mintzberg
- Value Map / Golnam
- A Modeling Framework for Analyzing the Viability of Service Systems / Golnam
- Unbundling the corporation / Hagel
- Coopetition within and between value networks / Golnam
- Competitive advantage / Porter
- Marketing myopia / Levitt
- The core competence of the corporation / Prahalad
- Aligning Value and Implementation in Service Design / Golnam
- The house of quality / Hauser
- Blue Ocean Strategy / Kim