School in the Palm of Your Hand

https://ITUniversity.us
Executive Summary

This investment is a unique opportunity combining great spiritual and financial benefits. The Chofetz Chaim said that Hashem leads in the way a person chooses to go. In business, success is not guaranteed, however in one field success is guaranteed with the help of Hashem: Mamleches Hakodesh. Internet Technology University (ITU) developed a conversational knowledge sharing platform with AI components helping to understand experts and structuring information into effective differentiated learning styles for students and corporate workers thus improving efficiency of learning and decision-making processes.
This platform will increase productivity in the workplace.
This platform will provide teachers with the resources for individual approach to each student according to their learning differences.
Field experts will have a platform for effective knowledge sharing.
Innovators will be able to focus on new ideas, while the platform will become a development factory helping with the technical details.

This investment is highly technical and requires a sophisticated investor in order to evaluate the risks and benefits of the project.
AI TECHNOLOGY

For a long time, AI has lived on the bottom of a lake of opportunities. Recent years turned the lake into an ocean, and the underwater current brought AI back to the surface.

Nothing else is growing as quickly with the demand for new skills and talents.

Many companies are raising billions of dollars to employ AI in business and consumer life.

Our approach is protected by several patents, providing an advantage over competitors.
Internet is your campus, a computer is your office and an expert-developer is your guide.

Internet Technology University (ITU) focuses on Accelerating Sharing Knowledge with Conversational Semantic Decision Support (AskCSDS) systems.

Our approach, supported by several patents, combines components of artificial intelligence with knowledge engineering expertise.

We develop methods and tools (AskCSDS) for building client-defined "knowledge factories" and related applications.
View 5 Years Financial Proforma

Download Excel Spreadsheet
INVESTMENT SUMMARY

- Proposed investment: $2 million to fund further innovation efforts and marketing
- Projected profit: gaining up to 1% of $90 billion market, during the first 5 years providing exponential net profit estimated in hundreds million dollars
- Patents and prior developments value: $9 million
- The offer to investors:
  
  We would prefer one investor of $2 million for 33% of the company
Investment Opportunity

Accelerate Sharing Knowledge with Conversational Semantic Decision Support Ask CSDS

Background
A year salary for knowledge workers is about six trillion dollars ($6,000,000,000,000).
How this was calculated:
According to USA statistics (https://www.bls.gov/news.release/pdf/empsit.pdf) about 160 million people are employed in that country.

About 70% are so called “knowledge workers” dealing with information daily.

With the average salary about $45k (https://www.thebalancecareers.com/average-salary-information-for-us-workers-2060808) their year salary is about $6 trillion.

Google is the best example in this market space. Google is a universal engine providing hundreds links in response to every query, helping everyone in a universal way and according to our estimate saving about 10% time, or about $600 billion a year. Big companies and startups are raising billions of dollars to employ AI in every area of business and consumer life.
Detailed schedule of projected resources and efforts

1. **Initial investment:** A small development team with a salary for 9-12 months - $400,000
   - Current status: We do not start from scratch. The prototype currently supports ITU learning platform and Enterprise Services.
2. **In 3-4 months:** A marketing team and marketing expenses: press releases, articles, direct advertisements, interviews - $200,000
   - Current status: Besides the patents, we have two books, several articles and web sites, will need investments in the marketing efforts. Besides conventional approaches, our AI-based targeting will optimize marketing and sales providing for ITU and its clients.
3. **In 4-5 months:** Hardware and software licenses - $100,000.
4. **In 6-7 months:** A small consulting team to work on implementations with potential clients, interacting with their SMEs and providing necessary customizations (we will do this **free** for high visibility clients) - $200,000
   - Later this will be a significant source of the revenue for our company.
5. **In 8 months:** Educational investment - $100,000 – needed to expand [http://ITUniversity.us](http://ITUniversity.us) into an exponentially growing team, where students study development of AI applications to become consultants and part-time instructors.
   ITU engages developers into part-time teaching + hire one extra part-time instructor + pay selected students and SMEs from selected industries to **become instructors and marketing partners**, thus providing exponential profit growing for ITU and partners.
6. **In 9 months:** Additional $500,000 – to create a set of Jewish Study Applications
7. **In 12 months:** about $500,000 to break even and become profitable
**Total:** $2,000,000 investment to expand the product and services with exponentially growing recognition and profit.

**Profit sources with projected percentage distribution:**
- Consulting work to customize the smart cloud and WhatsApp conversational services for high visibility clients – 30%
- Product Licenses – 60% - Clients will be able to cut their IT expenses and increase business productivity by semi-automation in decision-making processes. Estimated client benefit of using smart clouds is about 10% of their budget for knowledge workers (10% of $60bn is $6bn). A conservative estimate is that clients will pass about 5% of to pay for smart cloud and WhatsApp products (about $300mln)
- Creating a new education paradigm and growing exponentially our team of integrated software & knowledge engineering experts – 10%
- after initial investment this program will become profitable, although we plan to keep low price to continue growing.
Main Areas of Application

1. New educational paradigm, directly connecting students with Job Market
2. Judaic Educational system
3. WhatsApp Conversational Channels with AI assistance for study, marketing, and business
4. Knowledge Delivery as a Service
5. Capture corporate “Tribal Knowledge"
6. Conversational Design and Manufacturing
The Jewish way of studying Torah is by questions and answers. We cherish the good questions our children ask.

The AI platform is an interactive, conversational system. It can help to create an environment to teach Torah in the most efficient way, in accordance with Chazal (Pirkei Avot 4:6), (Eruvim 54b), (Pirkei Avot 5:21), (Taanit 7a.)... AI platform will insure that “Every section or the law will be taught to them with understanding the reason for each thing and its explanation." It therefore states: "that you shall set before them - like a set table with everything ready to be eaten, for the person." (Rashi quoting Hashem on Mishpatim 21:1).
ITU offering
Internet Technology University (ITU) focuses on Accelerating Sharing Knowledge with Conversational Semantic Decision Support (AskCSDS) systems.

Our approach, supported by several patents, combines components of artificial intelligence with knowledge engineering expertise.

We develop methods and tools (AskCSDS) for building client-defined knowledge factories and related applications, which target an estimated 90 billion dollar market.

While Google is a universal search engine, we focus on specialized knowledge domains, where Subject Matter Experts (SME) can increase their efficiency by using AskCSDS – technology.
Chabura: Discussions and Teaching Others

Chavrusas are used for discussions or one of the chavrusa, who is more proficient, explaining to the other the topic. Interaction with many chavrusas gives a student an opportunity to learn different ways of thinking, social skills, clear understanding and long-term retention.

AI Platform through interactive conversations will find the best chavrusas based on - but not limited to - level of knowledge and understanding, most conducive forms of learning for each chavrusa, that will excite children and teach them the beauty and pleasure of the Torah.
AI platform will encourage and lead chavrusas to come up with their questions and give their answers to Rabbis’ teachings of the Torah. Then with the aid of interactive AI platform they will discover supports and present the final work to their Rabbi for final approval and discussion.

AI platform will ensure that students are taught in the form and content most conducive to them and progress to their potentials.

AI platform will start every session with questions and initiate the discussion: the most sufficient way of learning discovered by Jewish Rabbis a long time ago.
Improving the discipline by getting parents involved in Real-time education

AI platform creates new groups on-the-fly including parents, students, and AI-assistants. Parents can send text, speak through earphone, and display the images on the screen. As it says: “Yosef saw the image of his mother Rachel, his aunt Leah, and his father Yaacov” (Legends of the Jews 2:1:122) that stopped him from behaving inappropriately.
Engaging and Motivating to Improve Quality of Study

Teacher’s time is priceless

AI resources help a teacher to engage and motivate every student.

Quality of study is highly dependent on how much attention can be dedicated to every student. With AI-assistance a teacher gets the necessary resources helping to engage and motivate every student.

For young students the ITU platform connects the parents, teachers, and AI-assistants in a live contact with their student-children.

With the aid of AI platform every student can walk the path along the Learning Pyramid over her or his own trail. Teachers can focus more on learning subjects, while other subjects, like discipline and similar can be monitored by the AI platform.
AI platform connected with the tools like Sefaria can help us learning Talmudic logic, analyze every sentence and word in the Torah. AI would give us significant benefits in a deeper understanding of the Torah.
Every day we read thousands of words. Our eyes scan through the words making meaning of some and omitting others. Have you ever once stopped to think about why these letters are chosen for these words, could the letters relay messages? In all English literature, one can easily swap or replace one word with another.

We use letters to form words, but there is no logical thought to the order or choice of letters.

Biblical Hebrew is a unique language. It is not merely a haphazard collection of consonants - whose order was determined by convention. As this is a Divine text it is a structured, organized language. Each letter has a purpose. For this reason, if the Torah missing a letter or misspelled, it is not kosher.
Our sages teach us: “Everything Hashem created for his glory.” The Kabala states that every Hebrew letter has meaning and every combination describes the essence of the Torah world. Adam was able to precisely name all of the animals and beasts to the amazement of the angels. The sages explain that every entity’s name is a channel through which its life-force is drawn down to it. Naming the animals and beasts reflected Adam’s knowledge of the wisdom of Creation, illustrating that he knew the nature of every created being.
“One should strengthen himself like a lion to get up in the morning to serve his Creator.”

Lions are lazy animals. They wake up reserved and roar at the lionesses to go and hunt, this could not be what the Sages would want us to emulate. Adam understood that the lion is the master over all the animals which is why he started it the name with ארי. ארי has the meaning of master and ארי over animals. If we substitute the purpose of the letters ארי in the Shulchan Arukh’s statement, then it makes sense: “One should strengthen himself like a lion – ארי, a master over animals - to get up in the morning to serve his Creator.” The animal is our body (animal neshoma); it desires comfort; it doesn’t want to do anything that requires effort.
WhatsApp as the main Conversational Channel at ITU

Similar to a web browser, WhatsApp is currently freely available to everyone and heavily used by more than billion people. ITU Platform integrated with AI-assistant allows for creating WhatsApp conversational groups on-the-fly. AI-assistant @ ITU can be easily involved in the discussions providing references and asking clarification questions. Enhanced WhatsApp conversations serve to:
- increase efficiency of study and development,
- improve results of marketing and service promotion,
- establish new channels for different types of business communications.
Knowledge Delivery as a Service
The main scenario of Knowledge Delivery as a Service includes several customization steps:

1. Engage
   The service engages a client into a conversation to define and refine daily the area of interest.

2. Collect
   The service uses publicly available sources to collect defined by a client information as an Ontology.

3. Retrieve
   The service includes a semantic engine to retrieve meaningful information from many data layers.

4. Create
   The service effectively creates specialized knowledge domains in the client defined areas.

Greatly improving search, knowledge domains open more opportunities.
Enterprise IT as we know it today is slowly disappearing. Companies have begun transitioning their IT to a cloud. However, we offer even a more significant transformation, which makes transitioning to a cloud much more efficient. Yes, Enterprise IT can be transformed from current enormous complexity and become very simple.

More than 50% of the IT budget currently manages technical systems, not information. Why? – Historically, different types of information has been processed by different systems.

Semantic Technologies change this by offering a unified landscape for all types of information.
Specific data tables in specific applications make specific SQL queries perform faster.

But in the increasingly interconnected business, integration efforts outweigh the benefits of specific approaches to specific data. And the growing art and science of Big Data help us understand a complete business story instead of having to piece it together.

Smart cloud services collect enterprise information in a unified knowledge component, corporate knowledge factory, improving opportunity for automation, while significantly reducing cost of IT.

Semantic Cloud Architecture

A unified information landscape is saving IT budget while delivering a big picture with Conversational Semantic Decision Support (CSDS)

- Common Sense Ontology
- Business Ontology
- Service Ontology
- Industry Ontology
Increasing business efficiency and providing a decisive advantage over similar businesses

ITU integrates structured and unstructured data and collecting “tribal knowledge” in the corporate knowledge factory. Every company is striving to become a leading business in its business area. Companies invest in smarter people and smarter technology.

Smart cloud services offer an optimal combination of both. Conversational Semantic Decision System (CSDS), described in the patents Knowledge-Driven Architecture and Adaptive Robot Systems helps to transform multiple forms of information into a knowledge domain.

Multiple CSDS can collaborate to connect knowledge branches. CSDS can also converse with an SME to retrieve and translate “tribal knowledge” into rules, scenarios, and services. A conversational approach to knowledge acquisition combines the power of Big Data and Semantic Technologies with the human intuition. This combination effectively creates a Corporate Knowledge Factory as a base for Conversational Semantic Decision Support (CSDS) systems.

Integrated software and knowledge engineering lead to truly collaborative (human-computer) development.

Development life cycle with its multiple teams of business, Conversational Development and Manufacturing (CDM) will replace development and maintenance teams.
Adaptable Robot Systems
Conversational Design, Modeling, and Manufacturing

SOA builds apps by connecting services.
Adaptive robot systems learn on-the-go, build new skills, and connect them, while manufacturing new products.

What we call design and development is transformed into a conversational modeling and manufacturing.

Each successful transformation introduces more rules, services, and orchestrations, adding computer (robot) skills.

Knowledge Tree or Knowledge Domain Ontology is a graph, similar to a Decision Tree.

Ontology allows a computer at least partially understand human descriptions, ask clarification questions, adapt and learn, while collaborating in a task.

Computer can quickly scan the branches looking for specific subjects that can be mapped to a described situation/task.

The conversational approach replaces a powerful combination of human intuition and computer restlessness. CDM uses an ontology to map human instructions to the knowledge tree. CDM has access to corporate knowledge factory and also connected to related knowledge domains. These connections allow CDM to fill in “know how” - technical details, which may include corporate policies and regulations as well as business process instructions and usually consume most of development time.
Adaptive robot systems (US Patent 7966093)

- Can learn on-the-go and build new skills, while providing on-the-fly translations of situational requirements into adaptive behavior models and further down to service scenarios for a collaborative robot team.

- The use case expands on Service-Oriented Architecture. Orchestrated services are assembled into business scenarios and applications. The invention integrated SOA with Knowledge Engineering to allow resolving new situations via computer-human collaboration. Built-in the system knowledge domain (ontology) helps a computer be a bit smarter by asking questions to refine instructions.

- This invention is improving robot-to-robot and robot-to-human conversational interface and providing on-the-fly translations of situational requirements into adaptive behavior models and further down to service scenarios for a collaborative robot teams, effectively building new robotic/computer skills.

- An example of such distributed collaborative work of robots and SMEs in conversational mode is provided below with a use case related to the military field. On the image below, a subject matter expert sends the order "Clear Mine Field" to a robot system.

- One or more robots, which is specialized in the Military operations, will intercept the order and subscribe as potential participants to this request. This will start a conversation between the system and the sender of the order. This conversation will result in a formatted scenario to be executed as a set of orchestrated services. The Conversation Manager will interact with the Scenario Formatter and check with the Service Dictionary to see if a scenario has been completed and can be executed.
Client benefits will drive our company profit.

Clients will be able to cut their IT expenses and increase business productivity by semi-automation in decision-making processes. Estimated client benefit of using smart clouds is about 10% of their budget for knowledge workers (10% of $60 bln is $6 bln). Our conservative estimate is that clients will pass about 5% of their benefit to pay for our smart cloud products (5% of $6bln is $300mln).

We expect about 50% of our company revenue from Product Licenses.

customization and support provided by our consulting team we expect another 30% of revenue. We plan to initiate this work free for high visibility companies as our investment to gain name recognition. Then this channel will generate constantly increasing revenue.

Allowing common access to knowledge domains excluding client-specific knowledge branches, will open an opportunity for advertising and add 10% to revenue.
Be part of the future of Education!
Creating a new education paradigm will bring an additional 10% revenue.

Current Formula of Education - Colleges and Universities serve as the primary channel to access education - Graduates: have a hard time finding work.

ITU and Semantic Technology is changing the formula of education. A Conversational Semantic Decision Support (see references and patents below) not only helps students by optimizing Individual Learning Process. CSDS also allows SMEs to transfer their knowledge into educational quality materials.

Current Educational Formula  
“Many to One”  
Many Students to One Teacher

Changing Formula of Education  
“Many to Many”  
Many Learners and Many Professionals

Accredited (old) courses for an “average” student  
University/College Administration  
High Education State Administration  
High Education Federal Administration

Conversational Semantic Decision Support  
Helping Professionals to Accelerate Sharing Knowledge and Optimize for Individual Differences

Semantic Knowledge Graph  
collected by the system working with experts
Changing the Formula of Education
Valid alternative to overpriced educational institutes

Conversation approach in education is crucial to finding individual differences and consistently engaging a student then directly connecting students to the industry.

Combined with Semantic Technology a Conversational Semantic Decision Support (CSDS) also helps students by optimizing Individual Learning Process.

CSDS also helps Subject Matter Experts (SME) transform knowledge into educational quality materials.

Expanding education beyond Academia, Teaching skills that the industry needs TODAY!
Expand Education Beyond Academia

Conversational Semantic Design Support:
• Helping SME transform knowledge
  • Building initial Conceptual Graphs based on Educational Goals
  • Helping SME transform knowledge into Learning Materials
• Optimizing Individual Learning Process
  • Evaluation Student Performance & Optimize Individual Graph
  • Semi-automatic Q&As arranged for Test-Driven Learning (TDL)
A new Educational Platform by ITU effectively expands education beyond the academy by helping SME, who wants to share, becoming an SME-instructor, teaching skills that are needed today and tomorrow, directly connecting students with the Job Market.
Reduce the necessity for brokerage between a student and a profession.

This is done in other industries. Smart applications such as Uber remove the necessity for brokers - receptionists at taxi stations. Smart applications directly connect consumers and producers.

Professional education will become less dependent on brokers, such as Academia and job agencies. Smart applications with CSDS will streamline professional training, directly connecting students and jobs. Educational publishers will finally be in a position to grow Global Knowledge Marketplace and to offer templates (conversational scripts) helping authors and the SMEs to share their unique knowledge.
Consulting agencies, which often have the best SMEs in a specific knowledge domain, will become invaluable knowledge resources. The system/platform helps SMEs sharing their unique knowledge in multiple ways, including Teaching-by-samples, Test-driven-study, and more. Some of these ways, such as Test-driven-study can be used for screening potential candidates.

Some companies, such as IBM, Google, Facebook, already started this process. CSDS will make it efficient.

With our team of software and knowledge consultants, we plan to bring an additional 10% of revenue. We plan to open our educational platform to IT and other selected industries and pay selected students and SMEs to become instructors and marketing partners. After the initial investment, this program will become a pro table, although we plan to keep low pro to continue growing. Our goal is to shift gears in higher education towards companies, expanding education beyond Academy, helping directly connect Job Market and students, significantly improving educational results.

In several years this area of business might bring significant attention and profit.
Interview

Questions and Answers
What is the actual goal and problem space you are looking to address?

The goal is trivial although the solution is not. The goal is to let computers do things that are most tedious operations, but today people preform. We often call these people “knowledge workers” as they operate with information. This work can be more automated, saving trillions of dollars. To enter this market means to teach computers to understand more and to help more.
Why your solution? Are there others in this problem space? What differentiates you from others?

There are 3 major solutions in this space; all three help computers understand and help more:

a) Generic search by Google – helps all "knowledge workers" regardless of their profession search and find information on the web via entering related keywords, this saves about 10% of time/budget, which is about $600 billion (a total market is about $6 trillion).

b) Engaging knowledge engineering consultants to create specific knowledge domain ontologies by using Semantic Tools, such as AllegroGraph, TopBraid, OntoText and similar.
   a) Creating Ontology is a tough task, which requires both domain expertise and knowledge engineering expertise. Plus it is a very-time consuming task. These challenges limit the success of this movement and these tools to about 0.5% of the market.

b) Cognitive computing, “throwing data in the computer”, is giving a good algorithm and a chance to figure out what is these data about and find data patterns for analysis.
   a) This is a relatively new technology, like IBM Watson, which has a long way for success.
   b) The biggest challenge is what to do with the patterns found? Computers, while looking for patterns, currently is not aware about business goals and specific applications where these patterns can apply.
   c) Over time, I expect cognitive computing to integrate with the conversational approach described in several patents.

Our solution combines computer restlessness with a domain expert intuition via a conversational interface. It is a system and methodology, which includes components described before and adds a conversational mechanism to better connect SMEs, ontology, and computer programs.
Our solution, which is protected by several patterns, combines computer restlessness with a domain expert intuition via conversational approach. The system includes original conversational scripts prepared once by a consultant working together with a domain expert. Then the system uses the texts to grow knowledge domain ontology and uses the growing ontology to collect knowledge domain information from data sources. Each interaction with users enhance the conversational scripts, increase knowledge domain ontology and makes a precise definition for collecting data from public sources, which in turn improves ontology.

Growing Ontology allows business users to gain immediate advantages in their business processes and with every interaction help growing Ontology. At some point, a growing ontology can help more complex applications, such as:

- Conversational Design and Manufacturing
- Creating alternative Education by assisting SMEs transfer their knowledge into educational materials, and more.

ITU is too small to spend any resources on fighting patent rights. At some point, a larger company will buy our patents to enter this game; this happened with our patent, US 7032006, Distributed active knowledge and process, which was obtained by Yahoo.

There are several companies, such as Moxie, eGain, and MindTouch that describe similar ideas, but while these companies use "Guided Search" (can be considered as a conversation) none of these companies close the loop. In our situation every interaction with users and every new bit of information in knowledge ontology makes improvements in all system components. Conversational scripts not only help users but also help growing knowledge domain ontology.
Funding requirements and estimated returns
We are seeking an investment of $2 million to fund further innovation efforts and marketing. Projected profit: gaining 1% of $90 billion market, during the first 5 years is estimated exponential net profit: $446 million

Patents and prior developments value: $9 million

The offer to investors: 10 shares, each is 3% of the company, at $200,000 per share. We would prefer one investor of $2 million for 33% of the company. We see this as necessary for our business, as being IT University was just stage one of the small business software journeys, now we need to bring the benefits of our AI platform to the industry.

Exit strategy
As a high margin business that’s performing well, major patents in the field, we see ourselves as a prime M&A target for major companies. This is a win-win situation as we can save resources by combining. It’s also a more efficient way for these companies to grow.

We expect this exit strategy would deliver 10X multiple on earnings. Time to this exit would be in the medium term of 3-5 years.
Internet Technology University (ITU) focuses on Accelerating Sharing Knowledge with Conversational Semantic Decision Support (AskCSDS AI) systems.

ITU uses AI components to engage students in group discussions and teaching. To help teachers and subject matter experts share knowledge in a highly structured and productive manner.

Feel free to ask more questions...

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References:
2. (Jeff) Zhuk, the book on Software and Knowledge Engineering
3. SOA, Microservices and Software Semantic Evolution, the Dataversity Magazine
4. http://ituniversity.us - Internet Technology University
Patents:

- **Knowledge-Driven Architecture** | US Patent | Yefim Zhuk | Driving applications with business scenarios

- **Adaptive Mobile Robot System** | US Patent | Yefim Zhuk | Integrating software and knowledge engineering with robotic technologies

- **Collaborative security and decision making** | US and 15 European countries, Patent | Yefim Zhuk/Boeing | Turning a beautiful idea of collaborative decision into a system

- **Rules Collector System and Method** | US Patent | Yefim Zhuk/Boeing | Formalizing expert knowledge into rules, which can be used for solving the next problem in the expert-computer brainstorming

- **Distributed Active Knowledge and Process** | US Patent | Jeff (Yefim) Zhuk/Yahoo | Collaborative access and negotiation for data and services

- **Development Factory** | Patent Pending | Yefim Zhuk