Ready Set Grow

Season Three Webinar Five

Session Summary

The Silent Partner:
Using Customer Input to
Design Winning Products

December 14, 2010

Presented by:

Technology Marketing Resource Centre

Canadian Innovation Centre

In collaboration with:

CATAlliance

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Introduction

The Ready Set Grow series presents webinars featuring subject matter experts and Canadian tech executives discussing topics of interest to the leaders of young Canadian technology companies.

On December 14, 2010, Ready Set Grow looked at the area of product design, and in particular, how to build more successful products through the incorporation of customer input in the design process through User Experience Design.

The session featured a presentation by Jon Asbury of CoreFour Inc. and a panel discussion where Jon Asbury was joined by John Myers and Scott Welch also of CoreFour Inc..   The discussion was moderated by John Foreman of the Technology Marketing Resource Centre.

This document captures the content of this session.

Speakers

Jon Asbury,
Vice President, CoreFour Inc. .

Jon (jon@corefour.com) attended the University of Toronto, graduating in 1986 with a B.A.Sc. degree in Electrical Engineering. He Joined Nortel Networks upon graduation, eventually becoming part of the Meridian Mail team.

Jon left Nortel in 1989, co-founding SoftArc Inc. along with his brother Steve and Scott Welch. At SoftArc Jon oversaw development of the FirstClass client, and also played a key role in the rise of user experience research as a tool for software development. This was put to use when Jon created the Open Text Social Media product, which was released to critical acclaim in 2008.

Jon is passionate about the role of design in software development, and in particular is a strong proponent of using user interviews and product mock-ups to ensure that software is not just used but loved.

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John Myers,
President, CoreFour Inc.

John (john@corefour.com) obtained an Honours B.Sc. in Computer Science from the University of Toronto and then began his career in 1980 working on software systems for Nortel Networks. After a few short years of programming activity John moved into management.

By 1994 John was the Vice-president and General Manager of Nortel's global messaging business unit. Under John's leadership over the next six years this business unit grew each year to exceed US$300M in revenue in 2000. It was also one of Nortel's most profitable business units.

John left Nortel in early 2001 to join his former colleagues at Centrinity and was the CEO there when the company was acquired by Open Text in late 2002. After the acquisition John continued to lead the team as general manager until his departure in early 2010. As co-founder and president of CoreFour

John continues to do what he has done for the last 20 or so years – which is to manage a growing and profitable environment in which a team of enthusiastic and very talented people can build innovative products that both delight and bring true value to a wide range of customers.

Scott Welch,
Vice President, CoreFour Inc. .

Scott (scott@corefour.com) has a co-op degree in math from the University of Waterloo, where he graduated in 1986. He first worked at Nortel as a co-op student in 1984, when he became the only co-op student ever transferred from Canada to the Nortel lab in Silicon Valley. He joined full-time in 1986, becoming part of the team building Meridian Mail.

Along with Steve and Jon, he left Nortel in 1989 to start SoftArc Inc. Serving as CEO until 1999, Scott provided product management and business leadership as SoftArc grew from 3 to over 100 employees, with revenue of over $15 million.

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After the acquisition of SoftArc/Centrinity by Open Text, Scott continued his role as Chief Evangelist for FirstClass. Scott has extensive experience in the public eye, having appeared at over 500 user groups, trade shows and industry symposiums. At CoreFour, Scott forges a direct engagement between the customers and the engineering/design groups, which he believes is crucial for the long-term success of any software company.

Moderator

John Foreman,
President, Technology Marketing Resource Centre

John Foreman is the founder and President of the Technology Marketing Resource Centre, a firm which helps technology companies accelerate their growth. He has over 20 years experience in the telecommunications and information technology industries. John has been involved in the marketing of technology in Canada and internationally since 1994. John is also on the Board of Directors for the Canadian Advanced Technology Alliance (CATA) and the Advisory Board of the Canadian Innovation Centre.

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The Silent Partner: Using Customer Input to Design Winning Products

What is User Experience Design and Why Should I Care?

A User Experience (UX) is the subjective feeling that a customer gets when using a product. The UX is important because it often colours the user's perception of the product far more than the technical features of the product do.

The Apple iPhone provides a good example. The iPhone is not the most technologically advanced phone on the market (remember those reception issues?), but it provides the type of "cool" user experience that its target user group values. That "cool" factor, which has generated tremendous success for the iPhone, didn't happen by accident – it was designed into the product.

User eXperience Design (UXD) is the process of engineering a product to create a favourable user experience. Typically this means taking a more holistic approach to product design. In addition to technical skills, UXD involves elements of psychology, graphical design and industrial design. In particular, a key step is investing in the research necessary to really understand what your target customer wants and using design techniques that will allow you to create the product that will provide the user with the experience they will value.

> *"Apple provides the best examples of the value of great user experience design. Whether you are talking about the Mac, the iPod or the iPhone, the user experience – starting right from the time you open the box – has been a key contributor to the success of their products."*
>
> Jon Asbury,
> *CoreFour Inc.*

For many companies, this approach presents significant challenges. Additional time and money invested in research and design potentially slow a product's market launch. Is it worth it? The market is very competitive and time to market is important, but at the end of the day, products which provide a great user experience sell better. Therefore, yes, it is worth it.

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It is also important to note that the user experience has to be considered right from the start of the design process. Trying to retrofit user experience design after the product is built has been compared to putting lipstick on a pig – it doesn't look good from a distance and it looks even worse up close.

An Approach to User Experience Design

UXD is a science in its own right and there are many possible processes you can use. CoreFour Inc., a Toronto based provider of software products for the education market, has developed a successful process based on experience and industry best practice.

Their process, described in detail below, covers the whole design process, from the creation of the design team right through to the testing and ongoing iteration of the design.

Create a team: Putting together the right team is critical. A team is necessary because products designed by one person tend to have a bias built-in, which ultimately weakens the product. As well, products designed entirely by technical experts tend to have poor user experiences. All in all, a cross functional team produces better results.

The CoreFour Approach to User Experience Design

- Create a team
- Research your users
- Invent some Personas
- Identify Goals & Activities of your Personas
- Write some stories
- What is the mental model?
- Sketch Storm
- Test the Sketch
- Share
- Iterate!

CoreFour Inc.

A team size of 3 is ideal – big enough to provide diverse views, but small enough to be nimble. In addition to these virtues, a team of 3 ensures that there is always a tiebreaker in the case of disagreement.

The members of the team should come from different areas (e.g., technical, marketing, operations, etc.) to ensure that multiple perspectives are brought to the table. In larger companies this can be especially helpful in breaking down silos that may exist between different parts of the organization.

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Leadership is also critical. The team leader needs to be experienced, passionate and able to motivate and guide the team through the process.

Ideally the team should have a dedicated workspace with whiteboards, projectors and other tools to enable the creative process. It is also helpful to have some of the artefacts of the user community – in CoreFour's case, as teachers are a key part of their user group, they keep teacher planning books and other things around the design room.

Research: This is the most important step in the design process. There is an almost overpowering urge on the part of many designers to believe that they already know their target customers' needs well enough and that they don't need additional research. This is a trap that leads to poor product design and missed opportunity. It is always important to gather current, detailed information about your users, their business and the things they will use you product for.

> "We all want to get on with building the product but building the wrong features wastes time, money and opportunity. Investing in research up front may feel painful, but it can greatly increase success."
>
> *Scott Welch*
> *CoreFour Inc.*

There are many ways to gather user information, but the use of face-to-face interviews is one of the best. Arrange for a series of informal conversations with typical individual members of your target user community. Don't interview a group – you won't get the same quality of input. Choose a comfortable setting to allow them to relax and share their thoughts without the distractions of their day-to-day responsibilities. Plan for 1 to 2 hours – any less and you're not getting enough detail and any more is too exhausting for your user and likely to become repetitive.

Find out what they do and how they do it today. Ask them to describe their day in 5 minute blocks. Find the pain points. Note – most people don't like the software that they use today, which means there are lots of pain points. Find out what motivates them. What makes a good day and a bad day. Figure out their goals and figure out what activities support their goals.

Now what do you do with all this information?

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Invent some personas: One useful technique for packaging your market research into a usable form is to create user personas. In effect, you create fictitious users that embody what you have uncovered in your research.

You create a persona by assigning it attributes that, based on your research, a real user might have.   Your profiles of these hypothetical users should be detailed enough to understand their needs, goals and frustrations.   It helps to give them names and pretend that they are real people.

Create personas for each of the key roles in your user community.

The use of personas brings your user community to life in the minds of the design team. It makes it easier to interpret the research and design the user experience

Identify Goals & Activities of your Personas: For each persona, identify what motivates them. What are their spoken and unspoken goals? Identify the activities that they do and rank them by importance and frequency.

A Sample Persona: Linda Miller - Public School Teacher

▸ Grade 7 Teacher at Mesa Public
   School (k-8) in the suburbs - 600 kids
▸ one of 4 grade 7 core teachers
   Core - English, math, social studies
   10 years teaching
▸ Married with a 2 yr old and a 5 yr old
▸ 32 years old
▸ Quite comfortable with technology: internet, social networking etc.
▸ Has her own laptop, iPhone
▸ Not impressed with the systems provided by the board of ed
▸ Loves the smartboard
▸ Wants to recognized and respected for doing a good job
▸ Wants to be a great teacher
▸ Wants her kids to be successful
▸ Knows the importance of a healthy work/life balance
▸ Etc...

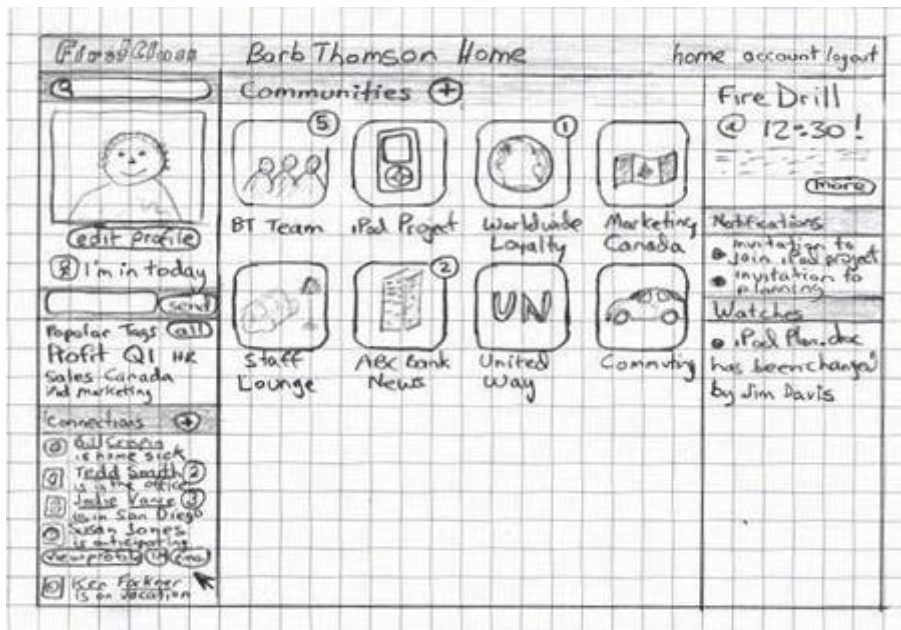*CoreFour Inc.*

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Write some stories to describe their activities: Create scenarios of each persona interacting with the product. Be sure to include all of the most important and frequent activities in their day.

What is the Mental model: To design a positive user experience, it is important to understand how the user thinks and build this into the persona. How does the persona view the product?

Create metaphors to relate the product to things the persona already knows. For example, photo web sites refer to collections of photos as albums – a concept that the user is already familiar with. Incorporating this concept makes users instantly more comfortable with the product.

Sketch Storm: Now that you have a good grip on user needs, you need to create a product design that will address them. One useful way to start the design process is to hold a "Sketch Storm" session. The colourfully named "Sketch Storm" process used by CoreFour involves designing the product through a series of simple sketches.   These sketches are easier to relate to

A Sample Sketch from a "Sketch Storm" Design Session

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than product specification document and easier to share with users and developers. They are also easy to change as you receive feedback on your design.

A team Sketch Storm session could last for several hours. These are greenlight sessions – get ideas out – don't criticize.

In the sketches, try to capture what the user will see. Try to get the feel of the product. Don't worry about details (colours, etc.) as these just become distracting to the viewer.

Keep your design as simple as possible – simple designs are more successful - the less complex and cluttered the better.

 There are software products that can be used for product sketching, but frankly simply using a whiteboard or sheets of paper is generally an easier way to go.

Test the Sketch: Walk through the stories you created earlier to test that the design meets the persona's needs. Ask questions. Iterate and improve.

The Perils of Prototyping

"Building a prototype of a product is a common step and prototypes have their uses. They are often helpful in demonstrating the proposed product to management or customers.

However, prototypes also have their downsides, especially when used as a means of fleshing out a design. For example, once a prototype is built, there is great reluctance to throw the code away, even if it is not ideally suited for the final product. Similarly the look and feel of the prototype become fixtures, even if they are not ideal.

The use of the SketchStorm approach is a cheaper and quicker way to flesh out initial designs, avoiding the time, expense and limitations of prototypes."

John Myers
CoreFour Inc.

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Share: Share the result with the broader team (development, sales, management, graphic design, etc.) and get their feedback. Fresh eyes will bring fresh insights.

Iterate: Your initial design is not cast in concrete. Iterate and refine the design to improve it. Don't be afraid to do another interview if you are uncertain about some aspects of user needs.

One key way to improve the design is to simplify. Simpler is almost always better.   Product designers refer to the MVP or Minimum Viable Product. Work to reduce the complexity of the product to the minimum that meet the users' needs. You can always add features in future versions once the need for them is better understood.

The Bottom Line

Why do some products enjoy wild success while others crash and burn or plod along and quietly disappear? One element that has a high correlation to market success is the quality of the user experience.   Go figure, but if you build a product that people love to use, it appears that they will buy it. Some companies (think Apple), have built their brand around building products with a superior user experience.

User eXperience Design (UXD) is an established field and is increasingly used by leading companies. Although there are multiple proven approaches, they share a few best practices, in particular, the investment in research to understand the user community. Another common element is the recognition that the user experience needs to be built-in right from the start of the design process.

UXD does require an upfront investment of time and money for research and design, which some companies find difficult to swallow. However, experience has shown that an investment in developing a product that people love to use is a very wise investment indeed.

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Further Reading:

The Design of Everyday Things
    By Donald A. Norman

Emotional Design: Why We Love or Hate Everyday Things
    By Donald A. Norman

About Face: The Design of Interaction
    By Alan Cooper

The inmates are Running the Asylum: Why High Tech Products Drive Us Crazy and How to Restore the Sanity
    By Alan Cooper

Profile: CoreFour Inc.

CoreFour was founded by four highly-experienced software developers and entrepreneurs with over 100 years of experience between them. With expertise ranging from operating system development to ultra-high-reliability telecommunication, from shoestring startups to initial public offerings, and from educational software to highly-secure military networks, CoreFour is set to build some impressive products.

The origins of CoreFour go back to the early 1980's when the founders first worked together at Nortel Networks. These four worked together to create Meridian Mail - the industry-leading voice messaging system that went on to become a global success with over $1B in revenue over the lifetime of the product. The challenge of creating a highly scalable and reliable telecommunications-grade product out of 1980's-era computing technology was substantial indeed. The limited capacities and performance of processor speed, memory and disk subsystems resulted in enormous challenges. However, the expertise and perspectives that grew through these efforts became the foundation and "trademark" of future product efforts by the team.

In 1989 three of the four CoreFour founders left Nortel to found a company called SoftArc and create FirstClass – a highly successful messaging and collaboration system that is now in use by thousands of organizations and

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millions of users around the world. The architecture of FirstClass was incredibly advanced at the time as it stored all users' data in a core server and provided users with true mobility and choice as they could use a wide range of devices (Windows computers, Macintosh computers, web browsers and telephones) to access their digital "stuff" that was securely stored "in the cloud". Today all modern systems are designed this way; in the early 1990's this was truly visionary.

The scalability and reliability of FirstClass enabled many very large organizations such as the Open University in the UK, the Danish Ministry of Education and Chicago Public Schools to deploy FirstClass systems with hundreds of thousands of users. The efficiencies created by the architecture enabled organizations to deploy FirstClass for as little as 1/10th the cost of comparable solutions such as Microsoft Exchange or Lotus Notes.

The unique characteristics of FirstClass spurred its usage in many types of organizations including advertising, media, transportation, health care, and franchise businesses. By far the biggest adoption of FirstClass came in the education sector with school districts around the world choosing it. Schools typically have limited budgets, few IT staff, large numbers of "users" (students and teachers). Schools also the need more flexibility and choice when it comes to how users access the system, unlike in business where each employee is generally issued a standard PC to be used for all computing needs. This focus on education customers over the last twenty years has given the CoreFour team deep insights into the unique challenges and needs of education organizations around the world.

SoftArc went public on the Toronto Stock Exchange in 1999 as Centrinity, following a reverse takeover of a smaller publicly listed company. In late 2002 Open Text acquired Centrinity and the FirstClass business has operated as a business unit of Open Text since that time. The four founders of CoreFour were the leadership team of that business unit and during their seven years at Open Text they continued to help the FirstClass business grow as well as conceiving and leading initiatives to develop highly innovative social media and mobility products at Open Text.

The CoreFour founders left Open Text in early 2010 and started CoreFour in July.

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Results of Real-time Polls

Below are the results of the polls conducted during the webinar:

Poll #1: What stage are you at in product design? (Choose one)

Concept stage	40%
Design stage	0%
Product development stage	20%
Product is launched	25%
Enhancing an existing product	15%

Poll #2: To what extent has customer input driven your design process? (Choose one)

Totally – we had extensive customer involvement	6%
Significantly – we gathered some direct customer input	44%
Somewhat – we consulted research materials on our target market	13%
None – we relied on our knowledge of the customers' needs	31%
Other	6%

Poll #3: How do you gather customer input? (Choose all that apply)

Surveys	13%
Individual interviews	53%
Focus groups	13%
Prototypes	67%
Design workshops	23%

Poll #4: Has this webinar change your perspective on the role of customer input in product design? (Choose one)

Yes, we will implement some of what we heard today	50%
Probably, but we will need to learn more	28%
No, we were already doing most of these things	17%
No - none of this applies to our business	0%
None of the above	6%

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Links of Interest

Business Development Bank of Canada	www.bdc.ca
CoreFour Inc.	www.corefour.com
Canadian Innovation Centre	www.innovationcentre.ca
Technology Marketing Resource Centre	www.tmrc.ca
Canadian Advanced Technology Alliance	www.cata.ca
Canadian Association of Importers and Exporters	www.importers.ca/
Canadian Manufacturers & Exporters	www.cme-mec.ca
International Chamber of Commerce	www.iccwbo.org/
Service Canada	www.servicecanada.gc.ca/

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