Design of an inclusive content adoption recommendation tool (ICART) as a new paradigm for higher education "textbook" adoptions and related sales rep activities

by

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Abstract

In a period of transition from print to digital, content adoption in higher education is changing drastically and presents a unique set of challenges. The inertia created by decades of traditional textbook adoption practices coupled with the stark contrast of today's millennial students and seemingly endless affordances of digital technology has created a complex new print-digital hybrid content adoption environment. For sales reps, professors and even publishers of higher education content, this relatively new content adoption environment is largely unmapped terrain that, together with figuring out how to successfully navigate it to achieve profitability, improved student outcomes and customer satisfaction, requires a shift from traditional content adoption mindset and practices toward a more inclusive and innovative approach. This project seeks to map the key stages of the content adoption process and propose a design for an inclusive content adoption recommendation tool (ICART) that enables sales reps to more knowledgeably and efficiently navigate each stage to achieve a more meaningful, value add adoption experience for professors and their students in today's complex higher education hybrid content adoption environment.

Acknowledgments

Dedication

To Brandi, Noah, Francie, Annanoelle, my former students and all students of tomorrow.

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1 Introduction

Today we are experiencing a fundamental transition from print to digital technology. This is a global shift across all strata of the knowledge economy resulting in a massive work flow shift from print to digital and all things in between, for individuals through to entire corporations. For many, the issue is not accepting that we are in the midst of such a transition but rather, how to execute that transition so that it is meaningful, value-add and cost-effective. This has certainly been the case for the higher education industry in the context of course content adoption.

Today's course content adoption decisions in higher education continue to be made within the walls of institutions that were founded hundreds of years before their attending students were born. Many of these institutions are overflowing with an aging, tenured faculty not native to the digital world. Currently, the average age of a college professor is 53 years and the average age of American professors is rising due to large scale hiring in the 1960s, limited growth in total faculty size, slow faculty turnover, good health care, and a decline in the age of retirement (Hannay, M., & Fretwell, C.,2011). Ironically, these are often the same faculty that are in charge of making individual, or committee decisions, on adoption of course content

including associated technologies that will be used by millenials or digital natives. Furthermore, fear, either of change from the ubiquitous printed text, or the unknown when it comes to the latest learning technologies, is also a factor that influences the decision of faculty to altogether forego adoption of digital learning technologies. At its worst, many faculty members are slow to adopt any technology simply because they are not convinced that using it will improve their students' learning (Rogers, D., 2000) or because they are so entrenched in the textbook adoption practices of yesteryear which fundamentally placed the only available resource at the time, the textbook, as the only viable course content option. Institutional factors such as limited budgets, poor training and lack of IT support may also affect adoption of digital learning technologies.

In contrast, millennials or digital natives, are experiencing a reality of disconnect, uncertainty and dissatisfaction when it comes to their learning experience. Having grown up around and with digital technology such as cell phones and social media they are used to dynamic and highly interactive content across all spectrums of digital media including internet, television and video games. They prefer to skim content rather than read it word for word (Moncao, 2007). Many also have lap tops and tablets that they use regularly for personal purposes. They are heavily engaged in online social networks which

they leverage in several facets of their daily lives due in large part to text, photo and video capability of cell phones. In many cases, their online identity is just as important, if not more than, their personal identity which also underscores the importance they place on social connection and being heard as well as understood.

Operating to serve the course content needs of today's professors and their students are the providers of the educational content solutions that ultimately form the basis of the subject matter taught. Providers range from established publishers, open education resource providers, and other content providers. For most traditionally single-text disciplines, most often those in quantitative fields, such as the sciences, mathematics and business, adoption decisions are primarily limited to publisher content. Even still there are a myriad of content options to choose from which leaves professors feeling overwhelmed with what is best to use in their classroom.

Enter the publisher's sales representative. With professors experiencing ever increasing responsibilities, students busy studying and content providers busy designing and developing, the role of bringing awareness about available course content and its subject-specific value to learning falls squarely on the shoulders of the sales representative. However, the sales representative is no longer simply a textbook sales representative. As the content adoption environment

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has become hybrid and more complex so too has the role of today's sales representative.

Today's higher education sales representative is largely content agnostic being forced to learn about product across several disciplines from Psychology through Physics. Today's sales representative deals with content format that is no longer one size fits all and, although at times still hears preferences for traditional textbooks, largely works with professors to leverage the affordance of digital to customize content to their specific needs and those of their student end users. The sales representative is also a digital specialist with extensive knowledge of educational technology including ebooks, online teaching and learning software, learning management systems (LMSs) and content integration within the LMS, adaptive learning technology and a host of technology enabled capabilities that often play an integral role in course content adoptions. Recognizing that professors are scrutinized now more than ever for accountability of student achievement today's sales representative also engages regularly with the student end user through class tests, chapter tests and other market development activities. The sales representative is also fully engaged with their client database in charge of keeping accurate reporting data about each adoption. This comprehensive breadth of product, technology and reporting responsibilities, as well as the

training received in these areas, most typically outside the purviews of an actual content adoption, leaves many sales representatives, especially new ones, with difficulty understanding where and how they all fit together within the actual adoption process and how to leverage each and when, to successfully close the sale. This lack of understanding results in inefficiencies that can potentially delay or jeopardize a successful and value-add adoption for both sides.

Furthermore, this also leaves the rep struggling to find ways to de-mechanize all of these elements during the sales process at the expense of creating a sales environment that is more focused on the technical and less focused on the creative and innovate approaches that may provide greater value and more personally meaningful solutions to their clients.

All of this inherently demands a more inclusive, innovative approach during the content adoption process. Geared toward sales representatives of educational content solutions the purpose of this major research project is two-fold: 1) provide sales reps with a clear understanding of the key elements of today's hybrid content adoption process in higher education single-text adoptions and; 2) leverage the key elements of the adoption process to inform the design of an inclusive content adoption rrecommendation tool (ICART) for use by

educational content solutions sales representatives in today's hybrid content adoption environment.

2 Problem

In higher education, the inertia of decades of traditional textbook adoption practices colliding with the novelty and affordances of today's digital technology has resulted in a new yet relatively unchartered print-digital hybrid content adoption environment. The novelty and complex dynamic of this environment has exacerbated the reality that the book-selection process is not always spelled out for instructors or sales reps (Cohen, 2011).

To date little has been done to map this new hybrid content adoption environment especially from the sales reps perspective. Mapping the key features of today's new hybrid content adoption environment from the sales rep perspective is the first design goal of this project.

Also, little has been done to provide recommendation(s) to sales reps, as well as professors, about how to navigate this new content adoption environment to positively impact and inspire teaching and learning by assisting professors with the content choices they make. Leveraging the aforementioned mapped key features of today's new hybrid content adoption environment to inform the design of an inclusive content adoption recommendation tool (ICART) for use

primarily by sales reps, and possibly even professors and publishers of educational content solutions, that helps navigate the hybrid content adoption environment for increased efficiency and value-add is the second design goal of this project.

3 Environmental Scan

3.1 Background

Today's higher education content adoption environment is a hybrid mash-up of content adoption practices from yester-year and content adoption practices that are still in their infancy as digital technology continues to evolve and influence educational content and adoption thereof. Much of what is encountered in today's adoption environment from a sales reps perspective is consistent with the fact that although many content adoptions have advanced to include digital content the actual adoption process itself has not advanced and comparatively little remains known about how the lecturer, an important gatekeeper at the university level, adopts textbooks (Palmer, 2013).

In their 2001 paper entitled "Textbook Evaluation and Adoption Practices" Stein and Steun state that although most research about the adoption process was written between 1986-1991 their own experiences with local textbook adoption committees suggest that findings from that research literature are consistent with current

practice. What that practice looks like, according to Stein and Steun, is

depicted as the textbook adoption process in Figure 1.

District Decision to Develop Curriculum and/or Select Instructional Materials

Administration Establishes Parameters for Development and/or Adoption
- Curriculum Adoption Cycle
- Budget Considerations
- Timeline for Adoption and Implementation
- Staffing
- General Adoption Policies

Administrator Assigned to Facilitate Project
- Establish Adoption Procedures
- Determine Committee Membership
- Define Budget
- Begin Work with Principals/Other Involved Administrators
- Establish Communication Procedures
- Establish Ground Rules with Publisher Representatives

Curriculum Committee Membership Determined
- Determine Make-up of Committee
- Identify Individual Committee Members
- Educate Committee

Committee Review of Research
- Curriculum Written or Instructional Materials Selected Based on Criteria
  Established from Research

Curriculum Committee Makes Recommendation
to Administrator and Board for Approval

Purchase of Instructional Materials and/or Publication of Curriculum

Staff Development and In-Service for Teachers & Administrators

Implementation of Curriculum and/or Instructional Materials

Ongoing Review of Implementation

Evaluation of Curriculum and New Instructional Materials

Modifications of New Program

FIGURE 1 The textbook adoption process

The textbook adoption process depicted is at the public school K-12 level for a district-wide adoption. The textbook adoption process in higher education is much more localized as both two and four year institutions typically carry out adoptions at the department level by subject. Although most research into textbook adoption practice pertains to primary and secondary education, rather than higher education institutions (Wong 1991 as cited in Palmer, 2013) the textbook adoption practices in higher education single-text adoption scenarios share many similarities with their public school counterparts.

The first of these is the establishment of parameters for adoption including curriculum adoption cycle, budget considerations, timeline for adoption and general adoption policies. Next is the assignment of an "administrator" to facilitate the adoption. This individual, typically an experienced full-time faculty member, ideally establishes adoption procedures, determines committee membership if applicable, educates the committee, defines budget, establishes communication procedures as well as ground rules with publisher representatives. Next steps typically involve an initial committee review of available and applicable content for the subject in question using content requested from respective publisher's representatives.

Upon completion of the initial review, committee members narrow content to what is typically referred to as a "short stack" of the top committee recommendations. The short stack typically amounts to

the top three or four titles according to evaluation criteria. The short stack is then narrowed down to a finalist typically using a combination of more granular evaluation criteria and additional information provided by the publisher's sales representative by way of a detailed content presentation. Finalist is selected and appointed committee members finalize content format, pricing and additional service related items.

In an ideal world each of these steps takes place in their entirety with enough time allocated to complete each and "must be orderly and objective, under procedures mutually adopted (English, 1980)." The reality in today's higher education adoption environment is that, at the extremes many of these steps are skipped but, more commonly due to resource constraints, many of these steps are compressed into a short time frame resulting in a less than ideal adoption scenario (Stein & Steun, 1980). Nonetheless, the fact that today's textbook adoption process continues to resemble that reminiscent of the mid-80s and early 90's speaks to the inertia that this process from yesteryear continues to impose on today's content adoptions. Yet this aspect of today's adoption environment is only one side of the coin – the side that addresses the high level mechanics of the adoption process.

The other side of the coin is one inherently unique to today's adoption environment which began to take shape shortly after 2001

with the arrival of digital technology. This side of the coin adds a new dimension to the content adoption process never before encountered. Although the affordances of digital technology and their resulting impact on educational content and learning are well publicized, their impact on the content adoption process is not. While significant resources have been exhausted in an effort to push all things digital as the magic bullet for teaching and learning, sales reps and professors alike have been given little in the way of an adoption process guide to today's unique hybrid content adoption environment that maps the key features of this new environment and provides recommendations on how to navigate these features to best impact desired adoption outcomes. Simply put, the arrival of digital has created a set of unique new adoption realities and possibilities never before encountered in the traditional textbook adoption process.

A comprehensive study of digital content use in U.S. higher education conducted by Blackboard and O'Donnell and Associates over a combined period of six months between September 2008 and April 2009 provides an excellent account of this unique new digital adoption environment and its respective realities. This was a comprehensive study of digital content use in U.S. higher education to better understand the needs of end-users and challenges encountered by the numerous groups involved in the processes of delivering course material and states the following:

"The use of digital content in higher education should make life easier for instructors and students. They can gain quicker access to less expensive materials – with lower environmental impact – that are easier for content providers to update and augment with supplementary material. Digital content is easier to transport and can be accessed from multiple locations at nearly anytime, which helps meet the needs of both millennial students and nontraditional or lifelong learners. However, digital materials have created new challenges for the people and organizations involved in the processes of content distribution and acquisition where three key themes have emerged:

1. Content workflows – particularly for digital material – are cumbersome and time-consuming, even though technology exists to make them more efficient.

2. Difficulties in streamlining the content delivery and acquisition processes are compounded by the divergent views and needs of the many stakeholders involved.

3. No single process or channel exists to find, adopt, access, and share course content, although several collaborative and industry initiatives address individual components of this workflow."

These three high-level themes are further complicated by lower level realities unique to today's adoption environment stemming from the influence of digital technology and its affordances including:

1. greater variety of content creation streams from independent creators such as the Khan Academy to open education resources (OERs) including massive open online course (MOOC) content delivered by fully accredited institutions (Petrides, 2011);

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2. availability of course supporting technology such as learning management systems and publisher created online teaching and learning suites (Starlink, 2004);

3. new instructional approaches such as the flipped classroom, Practice Oriented Guided Inquiry Learning (POGIL) and peer instruction

4. a new millennial student demographic that prefers to learn in ways aligned with the digital environment they grew up in (Monaco, 2007);

5. increased political and administrative pressures, largely fueled by the Higher Education Opportunities Act, to provide students with, among other things, more cost effective options to traditional hard-bound print textbooks including not only digital content but also alternative customized print format books such as loose-leaf versions;

6. increased awareness and pressure to choose content that is inclusive of the entire range of student abilities in the classroom

7. Immergence and evolution of the Americans with Disabilities Act (ADA), Web Content Accessibility Guidelines (WCAG) and W3C's Accessible Rich Internet Applications (WAI-ARIA) and their influence on digital content creation, use and its adoption.

Such a new and dynamic adoption environment leaves much in the way of opportunity to provide sales reps, as well as professors and others navigating it, with an easily understandable and organized overview of the key features applicable to this new adoption landscape as well as actionable recommendations that address the needs of the full diversity of adoption scenarios in order to realize more efficient and value-add adoption outcomes.

3.2 Current state of the art

Little is publicly available that addresses the seeming black box of today's hybrid content adoption process especially from the sales force perspective. Even less is available in the way of any sort of field tool, roadmap or guide specifically written to support sales reps, and potentially professors, through today's hybrid content adoption process from start to finish to achieve improved adoption outcomes.

There has been some related work done that has either contributed to streamlining certain parts of the textbook adoption process or analogous adoption processes.

Akademos Textbook Adoption Tool

One of the most relevant examples of how others have approached the problem of content adoption in today's hybrid environment is the Akademos Textbook Adoption Tool. Brian Jakobs, founder of Akademos states that Akademos "addresses tremendous inefficiencies in the college textbook market" many of which were rooted in the fact that, according to Brian, "faculty didn't have access to the best information(i.e. they need better access to textbook info such as price)" and "Information was not available in a single digestable form to make better choices (i.e. to discover and compare quality texts)." To address these gaps the Akademos textbook adoption tool was created which is an online tool that compares over 3600 subjects across 2 million books by school adoptions (Figure 2)
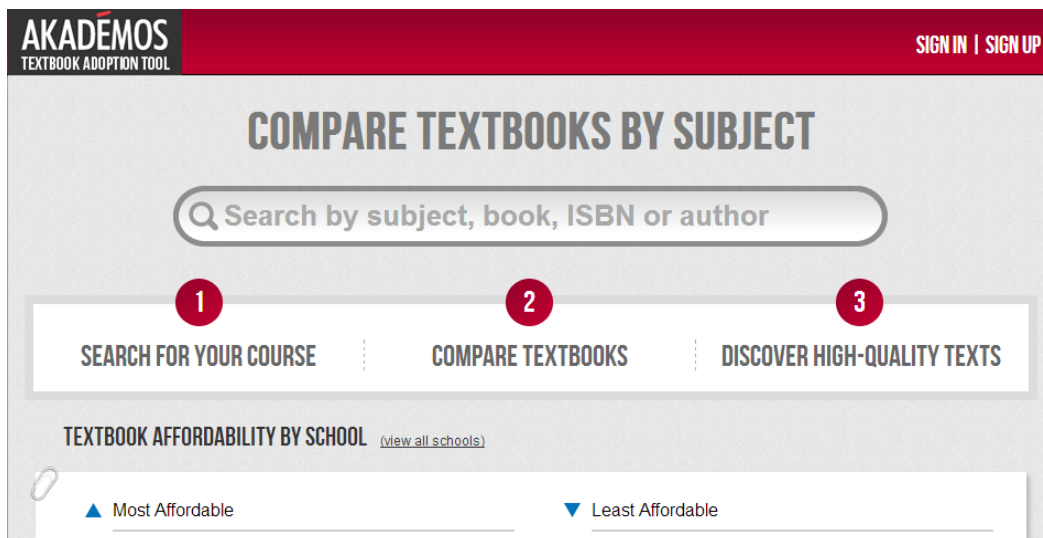

FIGURE 2. Akademos textbook adoption tool landing page

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Akademos allows faculty to contrast and compare not only the commercial materials available and those they are used to using but also the materials available for free online (OER) in a single comparative matrix. The capabilities of Akademos also include a textbook affordability look up tool (as shown in Figure 3) that allows you to look up by school and identify their most and least affordable subjects. This could potentially serve as a tremendous gut check and conversation starter with and amongst professors when discussing motivation to adopt new course content.
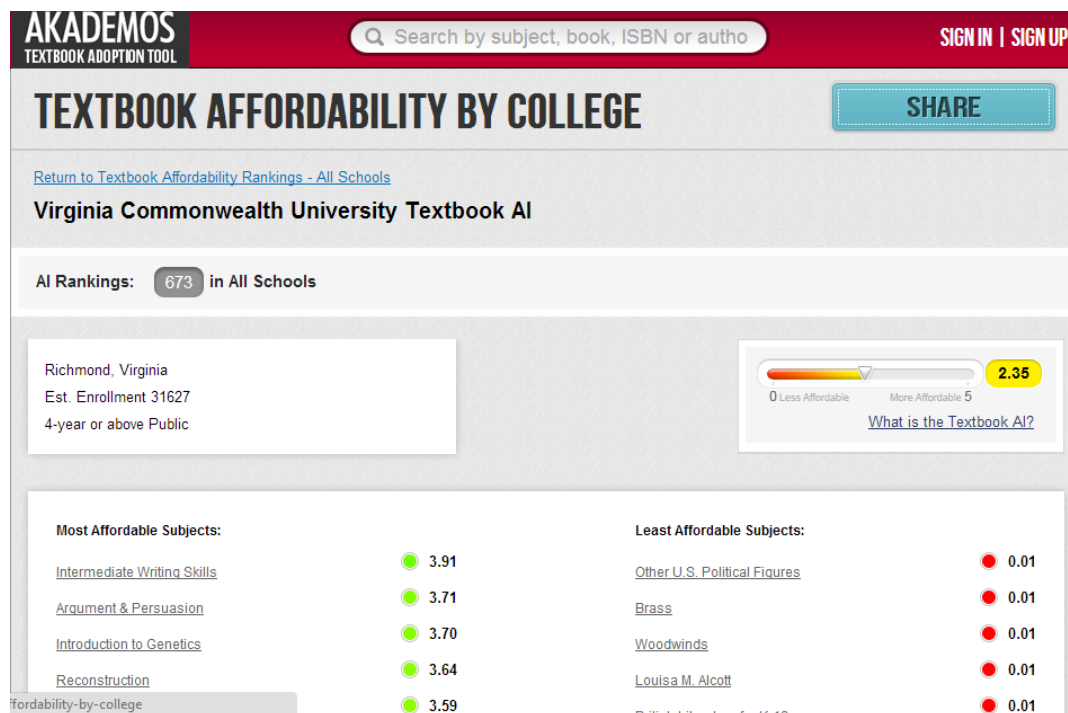

FIGURE 3. Akademos textbook affordability lookup (taken from http://adoption.akademos.com/textbook-affordability-by-college/234030/Virginia+Commonwealth+University/)

Although not a tool that addresses the content adoption process itself Akademos certainly addresses two key features of the content adoption process in the form of cost and quality as well as the ability to compare across a more inclusive range of content options all in one place with access to objective reviews by faculty.

TextbookTool.com

Another course content adoption tool that has been developed to assist stakeholders in the textbook adoption process is TextbookTool.com. "TextbookTool.com is an online textbook request system, helping college faculty users create and maintain textbook adoption requests, and helping departmental chairpersons view and approve/reject requests. In addition, TextbookTool.com allows college bookstore managers to quickly analyze and organize their textbook orders each semester." Unlike the Akademos textbook adoption tool that focuses solely on providing transparency to available course specific textbooks, their costs and quality, TextbookTool.com takes more of a holistic approach to the adoption process by focusing its functionality on the primary stakeholders involved namely faculty, chairpersons and bookstore managers. Publisher's sales representatives, arguably the fourth major stakeholder in the content adoption process, have not been included in the TextbookTool.com user group.

By navigating to the test drive screen (Figure 4) TextbookTool.com demonstrates a clear separation between bookstore managers, chairpersons and faculty based on their unique user requirements listed as "requirements" in Figure 4. For example, requirements for the professor include "Wants to be notified automatically when it is time to choose books. Wants to be able to copy adoption info he used for previous semesters over to his new classes so he can get back to teaching. Needs to search for latest books from a database of currently published titles."

Name: Melissa Smith
Job: Bookstore Manager
Requirements: Wants to get all faculty's text adoptions and supply lists turned in accurately and on time so she can have everything ordered and on the shelves and ready for students when the semester starts.Wants the ability to send out messages to everyone, and needs informative reports to let her see the big picture.

Log in as Bookstore Manager Melissa

Name: William Jones
Job: Chairperson
Requirements: Has a lot going on, so he wants to monitor and approve his faculty's text adoptions quickly and easily, and without a lot of paper flying around. Needs to make sure adoptions get turned in on time to keep the bookstore off of his back.

Log in as Chairperson William

Name: Ernest Hendershot
Job: Professor
Requirements: Wants to be notified automatically when it is time to choose books. Wants to be able to copy adoption info he used for previous semesters over to his new classes so he can get back to teaching. Needs to search for latest books from a database of currently published titles.

Log in as Professor Ernest

FIGURE 4. TextbookTool.com test drive landing page

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Reviewing user feedback on the "Testimonials" page on the website reveals that benefits to this tool include that is saves time and money, organizes the text adoption, allows for transparency to communication between adoption stakeholders during the adoption process, holds faculty members accountable for getting their adoptions and also provides reports that show faculty what they need to know. Also of interest is the customizability of TextbookTool.com in order to suit the particular needs of the college bookstore the faculty uses and the tools ability to evolve with the changing needs of its users (Figure 5). An adoption tool that can evolve and be customized to suit the needs of each different user in the adoption process demonstrates the importance of an inclusively designed adoption tool.

FIGURE 5. User benefits of TextbookTool.com

Like Akademos' Textbook Adoption Tool, TextbookTool.com also provides a "Book Search" feature that allows you to search through more than 300,000 currently published textbooks in order to find the book you need, a functionality that is indelibly linked to the mechanics of the adoption process. Also like the Akademos Textbook Tool site, the TextbookTool.com website notes that a "Book Review" feature is coming soon that "allows you to read, write and share reviews on textbooks." This underscores the importance of providing content adoption stakeholders, especially faculty, access and transparency to an objective measure of content quality for each potential content source that they may consider as well as a means by which to become a part of a content vetting community which become even more important as the amount of created content continues to increase in amount.

Follet Online Adoption Tool

Follet's, one of the leading textbook vendors, has created an online adoption tool (Figure 6) which they bill as "an effective way to select all of your course material". Their promotional video for the tool captures the essence of the purpose and functionality of this tool:

"The world of online education is evolving and so are the

course materials you select and the way you use them.

The adoption choices you make and the timing in which

you make them have an impact on your student's affordability and accessibility. Our goal is provide you the opportunity to select from a full range of course materials and submit all of your course materials/adoption choices."

The tool allows professors to decide how they search for course materials either by ISBN, via title/author or keyword or add it manually. It allows professors to review their order before placing it and shows whether materials are available digitally or for rent. Professors can also send notes to the bookstore and re-order materials because it stores all inputs.

For key highlights of the Online Adoption tool click here

Welcome to Online Adoption to Order Course Materials

Now it's easier to order course materials into the campus bookstore!

New features include:
- Easier ordering by ISBN, including batch ordering
- Batch re-orders of course material you've used previously
- Order status tracking and information
- Latest info about digital updates, new editions, and course bundles
- Adding course materials across multiple sections

You'll need an account to order. If you haven't already received a signup password, please contact your bookstore.

Order Course Materials
Sign In

Email

Password:

Sign In

Sign In >

Forgot Password?

FIGURE 6. Follet Online Adoption tool

Essentially, this is a tool that streamlines the search, selection and submission steps of the content adoption process. In doing so it allows

for an inclusive content search across all publishers and content providers and for a direct communication line with the bookstore concerning the final order. This is a tool ideal for individual choice adoptions but does not address the user need typically encountered during a committee adoption. It is also a tool clearly geared toward professors rather than sales reps and does not provide any treatment of content choice options such as formatting. It is a tool that presents options at face value only which limits any sort of flexibility or creative freedom that is typically exercised during the content adoption process to provide the most value-add adoption outcome. Lastly, this tool is limited in scope as it does not address other adoption process features outside of content search, select and submit.

Sales Force Data Center

The primary database that sales reps have at their disposal during the content adoption process is the Sales Force Data Center (SFDC)(Figure 7). This is a comprehensive customer relationship management (CRM) database that integrates all sales force activities across all adoptions and across all adoption stakeholders by rep.
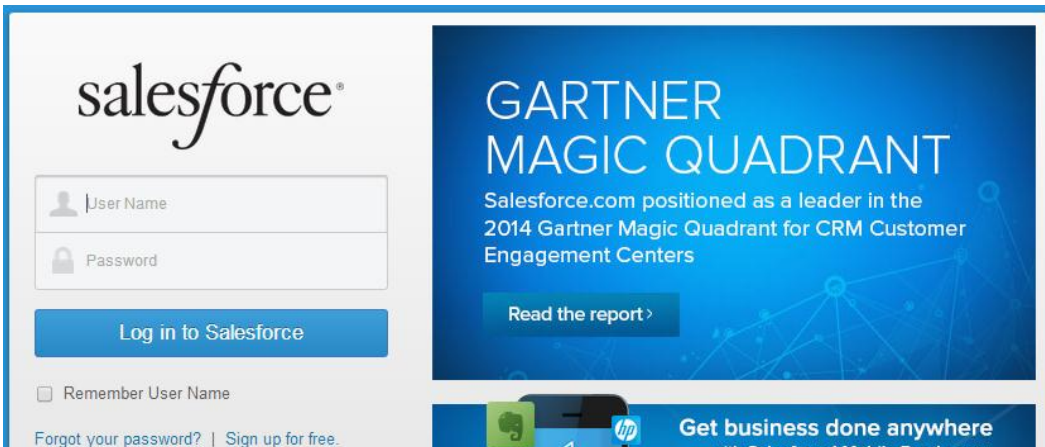
Figure 7. Sales Force Data Center CRM tool

The Sales Force environment provides the rep with the ability to engage with all available in-house resources such as marketing, editorial, and digital specialists as required to serve an adoption. Although the SFDC provides transparency to adoption sales activities across the reps region down to the reps territory the primary purpose for which SFDC is used by the rep is to log sales information associated with each potential opportunity that arises. Beginning at the highest level, typically upon receiving a request for a review copy of a textbook from a professor or upon identifying an adoption opportunity during a sales call, the rep enters the adoption course name, course number, semester course is to be taught, expected enrollment, course roles (i.e. what professors are teaching the course), current book in use (BIU) and the new title of interest. At

this point the adoption opportunity is classified as "active" (from "prospecting") and the adoption process timeline begins to run.

As the adoption process continues the rep make changes to the aforementioned inputs as well as add notes from meetings help with professors and engage in-house resources via SFDC chatter to support adoption activities. As more and more adoption opportunities are uncovered SFDC provides reporting capabilities that allow opportunity reports to be generated using a myriad of filtering options including opportunities by total adoption value, by school, discipline, stage and many others.

Although SFDC is an excellent adoption tracking and reporting tool its feature set and capabilities are not intuitively mapped to the mechanics and dynamics of the content adoption process and hence operating within SFDC fluidly requires overcoming a significant learning curve about the adoption process before all SFDC functionalities and capabilities can make sense. There is significant opportunity to map the feature set of SFDC to the actual steps that take place during the adoption process and for SFDC to potentially behave more smartly by serving up recommendations to reps about what to do at certain decision points along the content adoption process timeline.

Furthermore, given the sales facing nature of SFDC, any activity that needs to occur during the adoption process between the rep and professor(s), including communication, is forced to occur outside of the very tool that the rep is already using to track and report adoption details about. This creates a disconnect and lack of transparency as well as a variety of inefficiencies as the rep constantly has to jump in and out of the CRM, usually to the default email software, to address professor-related adoption activities such as receipt of textbook requests, meeting appointments, adoption timelines and so on.

HP Adoption Readiness Tool (ART)

Outside the purview of higher education textbook and content adoptions this is an adoption tool created by HP in order to assist HP software adopters with their adoption experience. Called the Adoption Readiness Tool (ART) it accelerates users' competency with high-quality, pre-built customizable training and support content. The end goal of ART is to provide sufficient up-front training to adopters and their end users to improve adoption efficiency.

This tool hits on the fact that typical adoption environments, the higher education content adoption environment not-withstanding, are fraught with inefficiencies and lack of training. For higher education sales reps the typical training focus is usually product, reporting and technology centric with much less to no time devoted to training that

maps the content adoption process, its nuances and the actions that typically need to be carried out by the rep in order to ensure greater adoption efficiency and success.

Individualized Online content solutions providers

As more and more content moves online more teaching and learning resources are becoming available for use in the classroom and as a consequence more and more classes are moving online. To meet the adoption of needs of courses with a significant online presence, outside of online copyrighted publisher content, open educational resources (OERs) are providing professors with a second option for. That is, adopting content that is sourced online for use in their classrooms. In today's hybrid content adoption environment this is a very relevant reality. In situations like this there is little to no reliance on a sales rep to help facilitate content adoption and more reliance on resources such as online content solutions providers that facilitate the planning, execution and support of such an online course. Colloquy is an example of a company that provides such a service. In this instance they serve the content adoption as curriculum design and delivery specialists to ensure that all desired content is adequately chosen, set up and maintained.

3.3 Successes, Failures and Remaining Gaps

The work done by Akademos, TextbookTool and Follett's as well as online content solutions providers such as Colloquay highlights the need for, and move toward, the creation of adoption tools and services that provide a more inclusive and efficient way to approach the content adoption process today. These tools and systems have succeeded at providing a means of streamlining and organizing the adoption process especially in a way that is not content- or publisher-centric, eliminating certain inefficiencies as well as removing barriers that have historically created transparency issues between adoption stakeholders such as professors, bookstores and administrators. They have also taken the first steps at creating an open marketplace (versus exclusive, single-publisher) that enables professors and others to view, compare and select available content across several content providers and content types, provide a means to rate and comment on the quality of content as part of a diverse academic community, provide a means to rate and assess textbook affordability so choices can be made that are accessible to all students, and provide a framework that holds adoption stakeholders accountable for the adoption choices they make. This is encouraging.

While these are steps in the right direction there are certain shortcomings inherent in their scope and design and the problem domain in general. Perhaps the greatest of these is the specificity of their design. A tool that is accessible to more than professors is important. We are not aware of any tools that have been designed for the sales rep as the user and instead are limited primarily for use by professors. Given the integral role that the sales rep plays in the content adoption process it is surprising that no focus on the sales rep as a user is prevalent. Although sales reps could use tools like Akademos Textbook Adoption Tool to aid their work during the adoption process there is no capability specific to the role of the sales rep inherent in their design. Addressing this gap is the primary focus of this project.

Existing tools also provide little in the way of demystifying the content adoption process. For the most part, there are hundreds of interpretations of the content adoption process across higher education campuses today with little in the way of a formal understanding of what the key stages are or recommendations for what to expect and how to deal with each stage during the adoption process. In effect, a significant gap exists in the way of providing a unified, transparent roadmap of the key stages in the adoption process today. The adoption process in today's hybrid content environment is, as portrayed by existing tools, not a simple browse, select and order

process especially in the quantitative disciplines such as science, math and business.

In addition to providing a unified and transparent roadmap of the key stages of the adoption process a significant opportunity also exists to provide a tool that provides the rep with recommendations about how to more inclusively address each stage according to the individual needs of each adoption given diverse adoption considerations that include things such as LMS integration (or not), online teaching and learning resources (or not) and flexible formatting options.

Existing content adoption tools also make little to no mention of, or provide support with, content evaluation criteria. Although some tools provide the capability for professors to comment on the quality of textbooks, the tools do not offer support that addresses evaluation criteria that should accompany an adoption. This may lead to an adoption decision that is made without any evaluation criteria, a decision that is made without a consistent set of criteria across all adoption committee members in the case of committee adoptions or to a decision that is made with evaluation criteria that are strung together in an ad-hoc fashion toward the end of the adoption. In turn this leaves the sales rep with little understanding of how their publisher's content will be evaluated and exactly what criteria are most important to the adopter(s). The ensuing result is a qualitative and

often emotional adoption decision rather than one that is pedagogically driven and needs based. A content adoption tool should include treatment of content evaluation criteria to some degree in order to facilitate a more meaningful and value-add adoption outcome.

Independent of any content adoption tools the affordances of digital technology have also contributed to improvements in the content adoption process. For example sales reps are able to provide professors with almost instantaneous access to any content they wish to review due to the proliferation of ebooks and ebook platforms such as VitalSource. This means that professors are not only able to receive their review copy faster but they can either rule out a title or move a title on to the next phase of the adoption process with little to no resource constraints. Sales reps are also able to provide professors with instantaneous test drive access to online teaching and learning resources for review early in the adoption process as well as to online instructor materials.

On the flipside, however, the rep is still a middleman that is required to authorize the release of the content for review also known as a comp. The current practice that has professors visit each publisher website to browse for potential content of interest and then requesting the content they are interested in from each respective publisher content silo is inefficient. It is inefficient not only because the

professor is forced to spend time browsing across several different publishers but also because the rep may not be able to process the request as quickly as the professor would like further delaying the process. The gap that remains is the opportunity for an automated inclusive content request system where applicable content across the full range of publishers and content providers appears in one place, the professor is available to get access to that content immediately since it would be in ebook format, all content providers whose content is selected for review are immediately notified that a review is taking place and all this without the rep having to spend the time they do today to provide review copies.

Further, it would benefit both the rep and the professor if, at the time of request for a review copy, professors were required to provide any related review information such as the reason for review, level of review priority (i.e. are the seriously looking to adopt or just browsing), date they are looking to adopt content for, course information including enrollment, additional faculty involved with the review and so on. As it stands today it is up to the rep to circle back with the professor either at the time the professor makes the request or after to find out all of this information which, when multiplied across all involved publishers eats up even more sales rep and professor time.

Many school systems, be they two or four year schools, are leading top down with the mandate that all professors teaching the same course must choose the same book. Similarly, especially in the case of two year schools where multiple satellite campuses exist, they are mandating that professors teaching the same course across all campuses use the same book. The theory behind the mandate is sound in that it imposes consistency across campus(es) and instructors for the benefit of students moving in and out the course by minimizing costs for students (i.e. they don't have to buy one book and then if they switch classes have to risk not being able to return the book) as well as imposes consistent curriculum across board. What continues to fail is that in terms of the content adoption process a logistical nightmare is created forcing not only adoption committee members to synchronize committee activities across multiple campuses (especially in light of their already nightmarish workload) but also forces the activities of the rep to be spread across instructors on multiple campuses which in many cases are rarely on the same page. Addressing the gap that is the need for a centralized adoption information pool where adoption related feedback specific to each publisher can be collected and stored is important.

In many adoption scenarios, especially for committee adoptions, the resources required in order to successfully complete an adoption

are simply not available and in direct competition with the resources required of the professors involved with the adoption whose primary responsibility is teaching and research. This often leads to adoption decisions based on the notorious 'flip test', that is, a brief and superficial examination of the materials (Palmer, 2013). Thus the content decision ends up being in the best interest of the committee rather than in the best interest of the students. There needs to be some upfront education and training for anyone that will be leading and participating in a content review. This is reinforced by a textbook (non-)adoption motives study done by Palmer (2013) whose findings revealed that academics appear to be disconcerted by the lack of training, mentoring or provision of guidelines in relation to textbook adoption, with (in-) action and rhetoric becoming increasingly vigilant:

> "I wasn't given any guidance on this front; I don't know
> of many occasions where an external examiner has made
> reference to a textbook. It appears that there is a policy
> of 'anything goes'. (F2)"

Publisher and/or content provider presentations are common practice and seem to be very helpful during the content adoption process. Content presentations provide an opportunity for those on the committee or making the decision to hear from the reps or digital specialists about the details of the content including supporting

technology, format options etc. The failure is that the information provided in these presentations is being heard for the first time much too late in the adoption process typically once a short stack is made. Some might argue that professors can check content providers website and get access to the supporting digital content ahead of time via test drives but the truth is that professors are often too busy to look at it, let alone digest it, until later in the semester when they are not as busy. GAP: Getting professors the content-related information they need up front and ensure that they can actually digest it well in advance.

3.4 Factors informing design

Adoption Inefficiencies

The design of an Inclusive Content Adoption Recommendation Tool (ICART) will be informed, first, by the inefficiencies and/or gaps frequently encountered during current adoptions. According to Smith,1998 (as cited in Palmer, 2013) adoption practice is seen to have three significant weaknesses: (i) lack of training in the evaluation process; (ii) lack of time allocated to textbook adoption; and, (iii) lack of research-based criteria available for evaluation. For the purposes of this project, inefficiencies and/or gaps of current adoption practices are expressed as "Use Cases" and "Observations and Problems" as

shown in Appendix A and B respectively, derived from information from secondary sources including field notes from our own field-based sales activities. In instances where inefficiencies have been noted an attempt will be made to propose innovative design ideas as part of ICART that will overcome these inefficiencies.

Existing Adoption Tools

The design of ICART will be also be informed by the capabilities, or lack thereof, of existing recommendation tools to aid the adoption process such as those previously highlighted as part of the Akademos Textbook Adoption Tool, TextbookTool.com, Sales Force Data Center and others. In areas where these tools have demonstrated limited or no capability an attempt will be made to propose innovative design ideas as part of ICART that will overcome these limitations with a focus on inclusion.

Promising Trends

Those things that content providers, as well as existing textbook adoption tools, are doing that show promise and/or are generating significant traction in the adoption environment will also inform the design of ICART. These include things such as: flexible custom formats, social learning, adaptive learning, partnering with open education providers, providing a centralized location for adoption

activities, providing a venue for a content vetting community where content quality can be reviewed and commented on, questions can be asked among content adopters or would-be adopters, and providing transparency between adoption stakeholders.

Guiding Experience Principles

The design of ICART will also be informed by two sets of guiding principles namely Guiding Experience Principles and Guiding Environmental Principles as shown in Figures 9 and 10. The Guiding Experience Principles (Figure 8) include those that will inform the design of the ICART in terms of the type of experience that is desired for the rep when using the ICART. The Guiding Environmental Principles (Figures 8 and 9) include those that will inform the design of the ICART in terms of how the reps use of the ICART can influence the adoption environment during the adoption process.
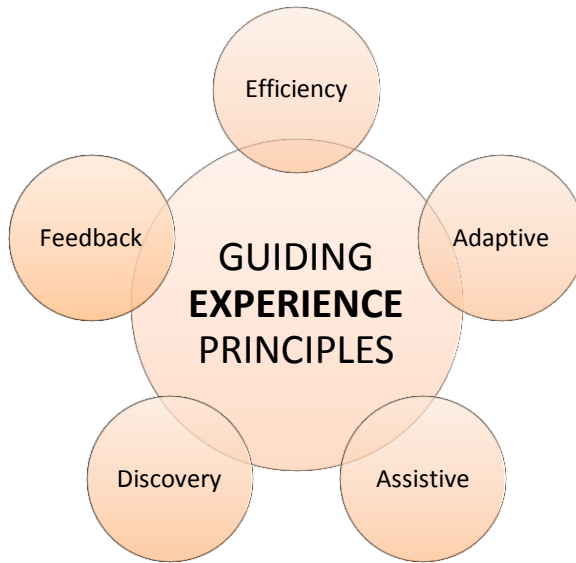
FIGURE 8. ICART Guiding Experience Principles
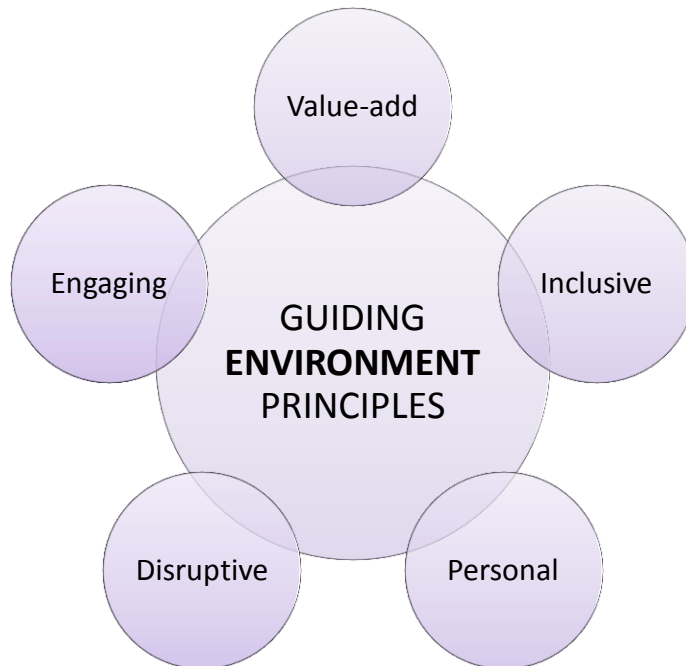
FIGURE 9. ICART Guiding Environment Principles

Operating Environment

Lastly, the design of ICART will be informed by the environment within which the sales rep operates. The sales reps activities are typically divided between a home office and the field visiting campus. This makes the job of the sales rep extremely mobile. As a result, aside from any face to face interaction activities that the rep has with professors the majority of the sales reps activities are relegated to mobile hardware such as lap tops, tablets, mifi and smartphones as well as associated mobile applications such as email, SMS, voice, and others.

Each of these elements that informs the design concept that will address the problem have been translated into "Use Cases" (Appendix A) and reframed as "Observations and Problems" from the rep or professor perspective (Appendix B).

4 User, User Needs and Context

4.1 User

The primary user is the publisher's sales representative. Inherently, given the dynamic of the adoption process, there exists cross over with a secondary user namely professors and instructors. Potentially

sales support personnel as well as marketing and product development teams could benefit.

4.2 User Needs

User needs have been captured in both the Observation and Problems listed in Table 2 as well as in the Use Cases listed in Table 3. At high level, a summary of the user needs can be expressed as follows:

- Simple and easy to use reference for use in field during content adoption process
- Framework for the type of information that should be covered and collected during the content adoption process
- Provide rep with a clear understanding of the key stages in the content adoption process
- Understanding of when each adoption stage and its respective recommendations typically happen and/or should be deployed during the adoption process
- Save time and/or reduce operational sales inefficiencies typically encountered during content adoption process.
- Training tool that provides content adoption overview PRIOR to identification of adoption opportunity
- Tool that informs the rep across a variety of applicable insights

4.3 Context

On the broadest level ICART is being designed for use as a content adoption process navigation and recommendation tool by sales reps when working in the field (on campus) making calls to each professor associated with an adoption opportunity. ICART would be deployed

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and utilized throughout the entire lifecycle of the course content adoption process in both individual and committee adoption scenarios. Further, the tool is also being designed for the purpose of being used as a training aid for new sales representatives to provide them with an overview of the content adoption environment and actionable recommendations that can be deployed at any point during the content adoption process.

5 Proposed Design

5.1 High level description

The proposed solution is for a tool that provides higher education sales reps insight about the stages of the content adoption process and a recommendation framework for how to most inclusively and efficiently navigate the diversity of unique content adoptions relevant to today's hybrid print-digital adoption environment leading to increased sales performance and customer satisfaction.

5.2 Details of Design Concept

Called the Inclusive Content Adoption Recommendation Tool (ICART) the design concept is for a web-based inclusive content adoption recommendation tool (ICART) that delivers meaningful and efficient

functionality aligned with the adoption process activities of higher education sales reps and relevant to today's hybrid print-digital content adoption environment. The overall design concept, together with the experience principles and problems and observations that inform the design of the ICART, is presented in the form of a touch point map as depicted in Figure 10. The design ideas and concepts of the ICART specific to each stage of the content adoption process are presented in detail in the subsequent sub-sections.

FIGURE 10. Touchpoint map of ICART design concept

i)   **Adoption Awareness**

a) Recommendation for essential questions to ask at outset of adoption

Concept: Checklist of recommended most essential questions to ask at the outset of an adoption.
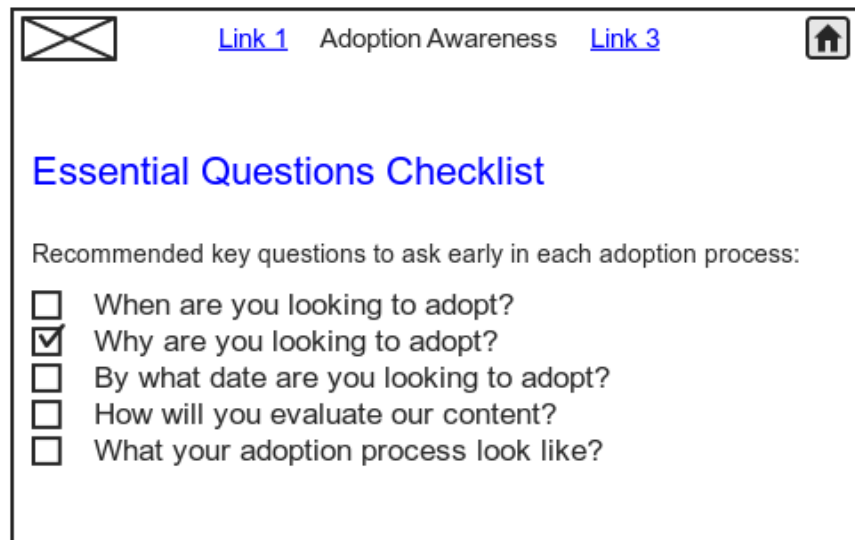

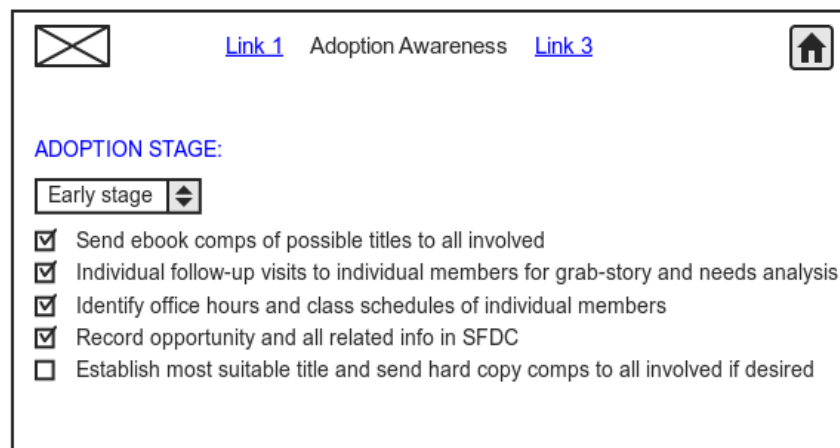**FIGURE 11.** Mock-up of essential questions checklist

Complete list of recommended essential questions

1. When are you looking to adopt?
2. Why are you looking to adopt?
3. Is this an individual or committee adoption?
4. If committee, who else is on committee?
5. Who is the primary/chair of this adoption committee?
6. What are your top 3 pain points?
7. By what date are you hoping to make your final decision?
8. What criteria will you be using to evaluate our content?
9. What is your adoption process?

b) Recommended engagement checks by adoption
   timeframe

   Concept: Checklist of recommended methods/acivities
   rep should employ and complete throughout duration of
   adoption process sortable by early, mid and late adoption
   timeframe.

FIGURE 12. Recommended activities checklist

Complete list of adoption activities by stage

Early stage
1. Send ebook comps of possible titles to all involved
2. Individual follow-up visits to individual members for grab-
story and needs analysis
3. Identify office hours and class schedules of individual
members
4. Record opportunity and all related info in SFDC
5. Establish most suitable title and send hard copy comps to
all involved if desired
6. Second needs analysis follow up visit with all involved for
pain points deep dive

7. Visit bookstore to capture current BIU, format(s) and associated costs (used, new, rent)

<u>Mid stage</u>

8. High level title technology outline (static) to individual members (if applicable)

9. Identify and send out applicable marketing material if available and engage marketing team if required

10. Communicate competitive advantage(s)

11. Discuss deep engagement activities (class test, chapter or technology focus group, workshop invitations etc.) and arrange if time allows

12. Contact title editor and request for follow up call to chair and/or others for additional discussion or input regarding title suitability and strategy

13. Discuss content format availability esp. w respect to cost-benefit and assess most suitable format

14. Re-assess position (i.e. has anything changed since we last met)?

<u>Late stage</u>

13. Arrange for, and conduct, low-level technology presentation/dynamic demo and move to close

14. Complete rough draft of service agreement if large adoption and discuss w committee chair

15. Follow up w chair and individual members to assess short stack status and close if applicable

c) Recommended content format type to use by scenario

Concept: Format options available for selection based on adoption requirements are listed and sortable based on needs scenario
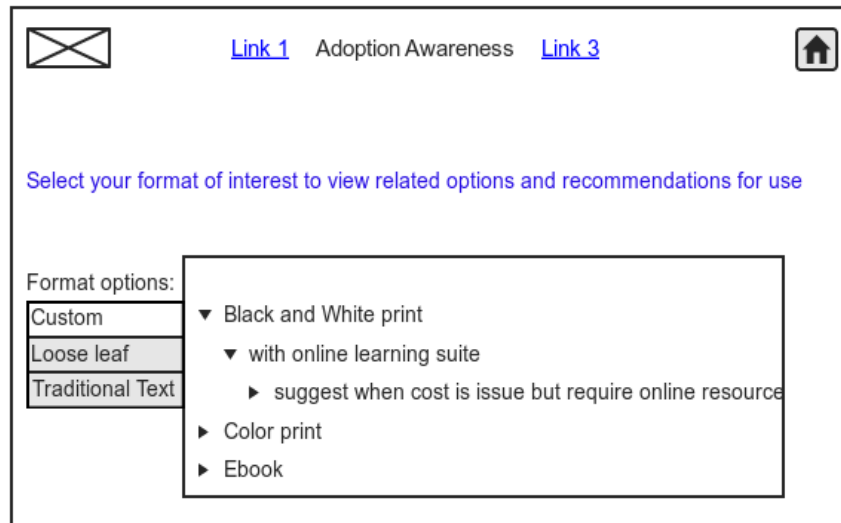
FIGURE 13. Mock-up of format type by scenario sorter

Complete list of format types by scenario

1. Traditional text (not viable. not recommended)
2. Ebook only (not common. Common in exec. grad level courses mostly. Recommend when no flex format available usually when older edition book is adopted)
3. Original loose-leaf only (common in non-online suite scenarios, excellent renewable option)
4. Original loose-leaf w online suite (not common when cost is major issue)
5. Custom (any format) (recommended when cost is factor and/or when all chapters will not be taught)
6. Custom black and white (w online suite if applicable) (recommended when cost is issue and when online suite is desired...provides best of both worlds)
7. Custom color (w online suite if applicable) (recommended but usually not viable option as cost of custom color usually same or more than full content loose-leaf)
8. For any option that will include online suite identify whether integration with LMS is required as well as what type of LMS (i.e. Blackboard, Canvas, D2L etc.)

ii)   Administrative

a) Recommended applications for use by scenario

Concept: Search capability for rep to enter query about what application to use based on what adoption function he/she needs to carry out . Once found rep can click on linked application and will be taken to application log in screen
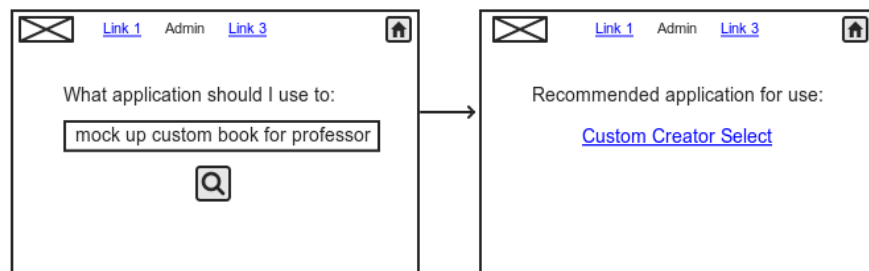

FIGURE 14. Mock-up of application recommendation search

Complete list of typical applications used by rep by scenario

Need to store opportunity related adoption info (use SFDC)
Need to collect opportunity details from interviews (use iPAD or voice recorder)
Need to collect committee information (use online class schedules and faculty directories)
Need to locate title information (ISBN, list price etc.) (use publisher website or flex sheet if available)
Need to locate current BIU or BIU cost and formats sold (use bookstore website)
Need to locate title options and/or product specific

information (use iSell or other product family edition info tool available such as SFDC)

Need to gain access to online suite for demo purposes (use rep access via online suite website)

Need to provide comp (use SFDC eval function)
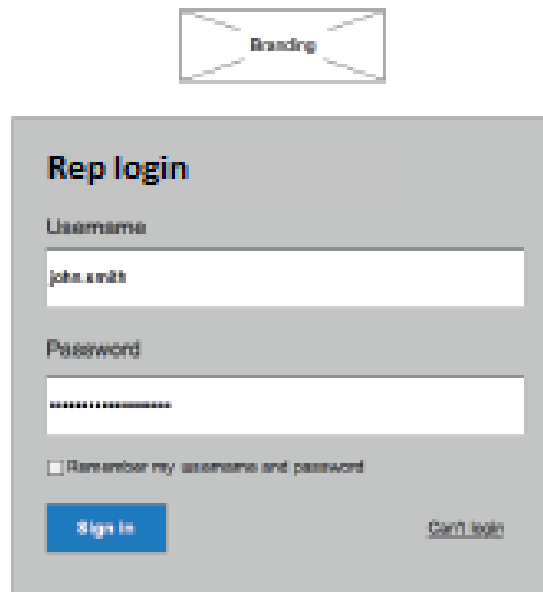
Need to send stakeholder communication (use email, phone, SMS, chatter or Lync if available)

Need to conduct virtual meeting (use Adobe Connect or other virtual conference software if available)

Need to mock up custom content and pricing (use custom website if available)

b) One login. One password

Concept: One login for everything. One portal that integrates all rep-related applications.

FIGURE 15. Centralized single sign on.

c) Campus plan recommendation checklist

Concept: Checklist for rep with recommendations on how to carry out and structure campus plan

Complete list of campus plan recommendations
1. Planning priority based on most successful/strongest selling disciplines first
2. Plan based on course enrollment size as determined from school online class schedule
3. Plan by professor availability based on faculty office hours and teaching hours from faculty directory and/or department admin semester teaching schedule
4. Plan to see visit each campus 2x per month and group by geographic location
5. Plan no more than two overnights per week
6. Plan one office day per week

iii) Adoption Activity

a) Interactive Timeline by Adoption

Concept: Shows single timeline of all adoption activities by school or of activities specific to an individual adoption. This includes ability to track and view comments, ability to exchange adoption resources and view upcoming adoption milestones.
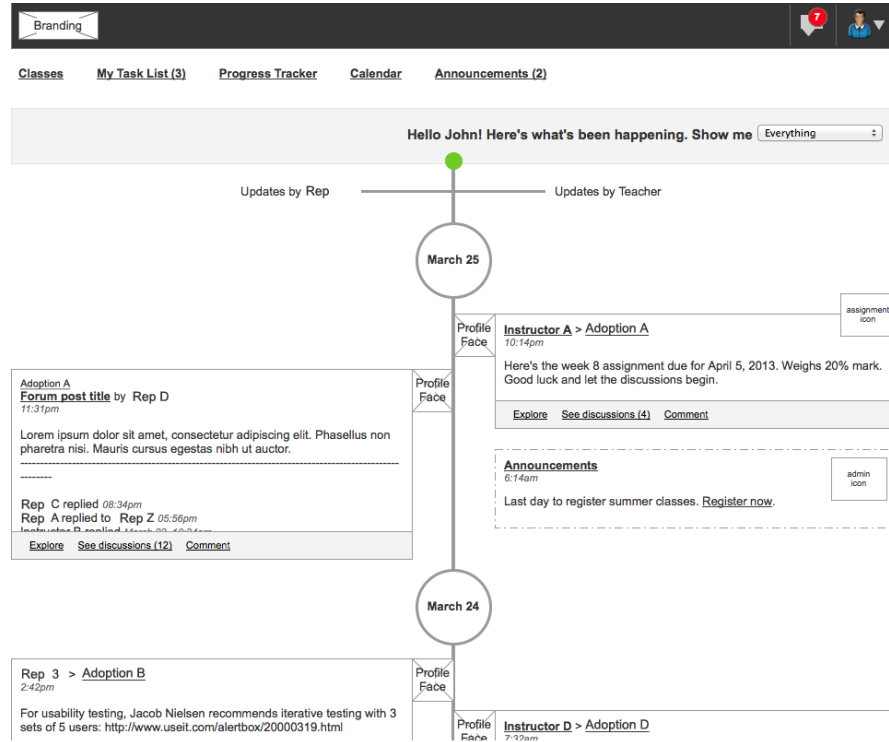
FIGURE 16. Mock-up of interactive timeline

b) Centralized Adoption Discussion

Concept: Discussions specific to different adoptions can occur seamlessly in one place with transparency to contributing stakeholders
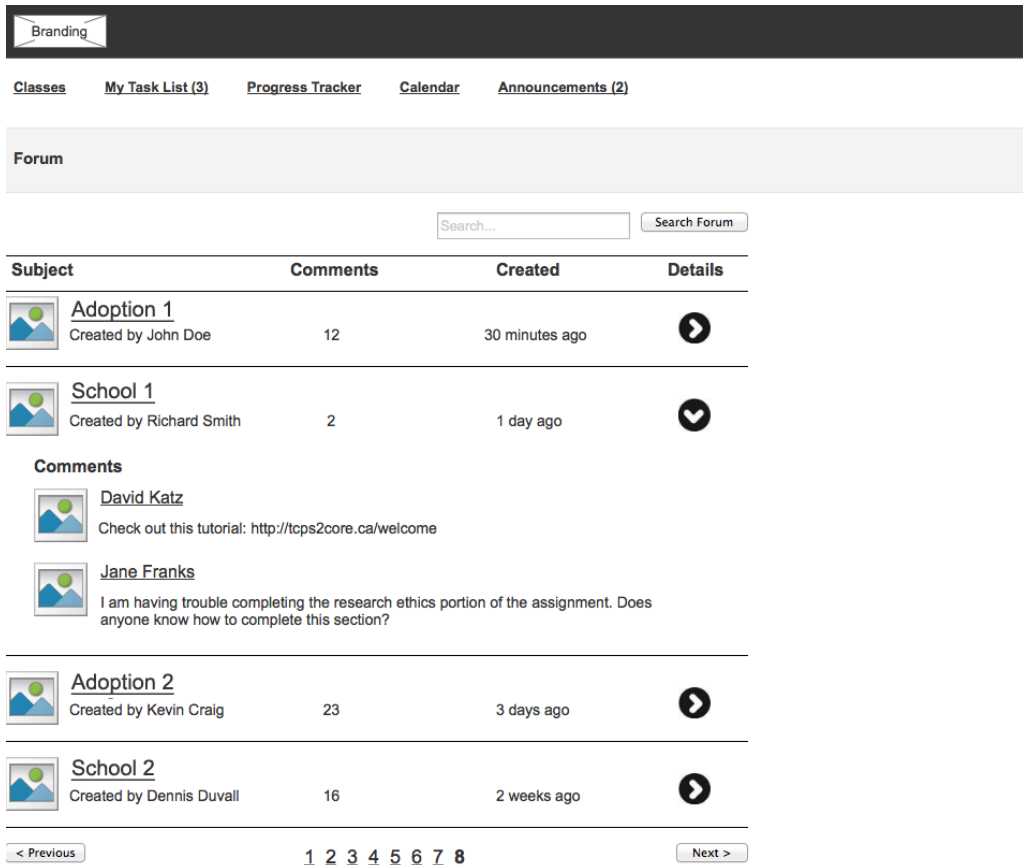
FIGURE 17. Mock-up of adoption discussion forum

iv) Stakeholder Interactions

a) In-house Support Look up

Concept: Ability to look up available in-house support by role to provide rep with understanding of key players and who they can help during the adoption process.
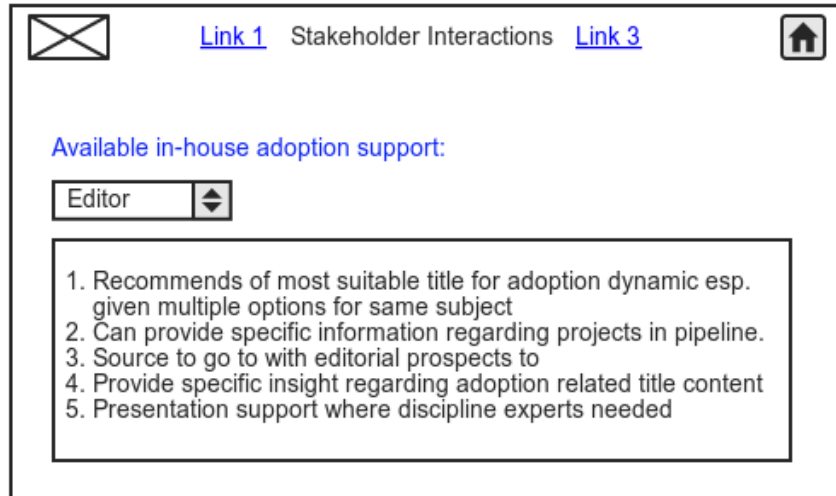
FIGURE 18. Mock-up of in-house support look-up tool

Details of in-house support roles and responsibilities

| Who?	What?
Editor	1. Recommends of most suitable title for adoption dynamic esp. given multiple options for same subject 2. Can provide specific information regarding projects in pipeline. 3. Source to go to with editorial prospects to 4. Provide specific insight regarding adoption related title content 5. Presentation support where discipline experts needed
Marketing	1. Support w product related marketing media 2. Support with adoption engagement activities such as class tests and focus groups (set up and execution) 3. Support w updates on new product releases 4. Presentation support where discipline experts needed

Digital Learning Consultant (or equivalent)	1. Support w digital content strategy by title 2. Additional presence during adoption calls 3. Presentation support where digital technology being considered 4. Support w sales strategy and objectives esp. related to digital/renewable revenue streams
Digital Solutions Specialist (or equivalent)	1. Support w high level digitial technology needs incl. test drives 2. Support w execution of digital engagement activities such as online suite class tests and focus groups
Sales Support Specialist (or equivalent)	1. Support w content needs incl. rush comp orders etc. 2. Support w presentation related logistics 3. Support w product issues

b) Bookstore Checklist
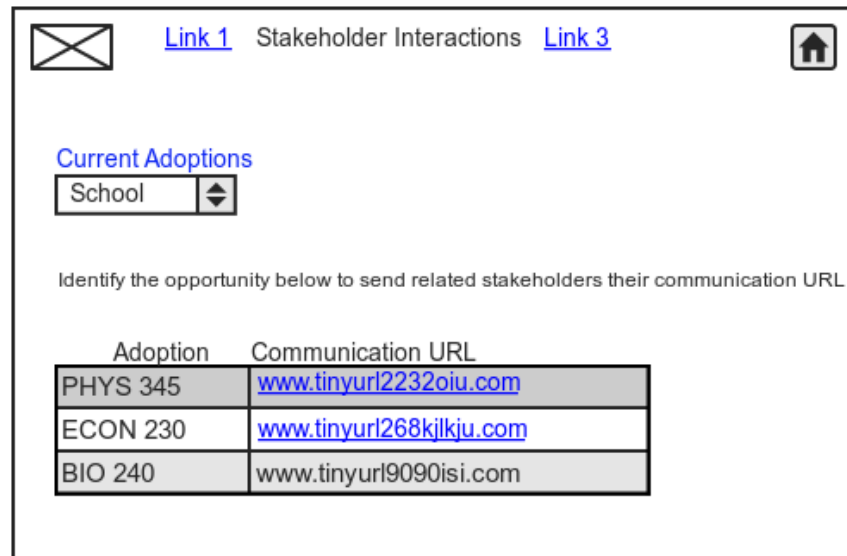
Concept: Checklist for rep of recommended bookstore activities to complete during adoption process.

Detailed list of bookstore activities

1. Identify and record contact info for bookstore manager(s)
2. Identify bookstore pain points re: publisher activity
3. Identify ordering periods w respective dates
4. Identify buy back periods and respective dates
5. Scan shelves for formats and assoc. pricing
6. Establish preferred content order protocol between rep, professor and bookstore

c) Adopton Specific communication URL

Concept: Adoption specific URL that each stakeholder can click on and then input, via feedback form, any communication unique to that adoption.

FIGURE 19. Adoption specific communication URL

v) **Engagement Activity**

a) General Engagement Activity Recommendation Checklist
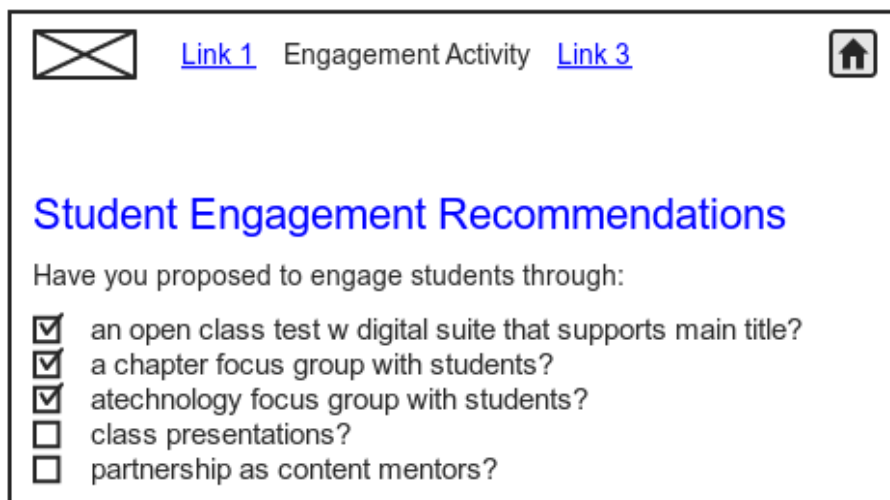
Concept: Checklist of recommendations for ways in which rep can engage adoption stakeholders other than students.

Detailed list of general engagement activities

a)have you sent out content related marketing media, either print or digital format, to adoption members?

b) have you invited your adoption members to title-related workshops or training?

c) have you scheduled a technology presentation

d) have you requested the course syllabus or outline from the primary/committee chair?

e) Have you asked the editor to content your primary adoption members to address concerns and questions

f) Have you held a publisher-related presentation or booth at the bookstore or campus conferences?

b) Student Engagement Activity Recommendation Checklist

Concept: Checklist of recommendations for ways in which rep can engage students currently enrolled in course looking to adopt new content.

FIGURE 20. Student engagement activity checklist

c) Accessibility and Inclusivity Recommendation Checklist

Concept: Checklist of recommendations for ways in which the rep can integrate treatment of accessibility and inclusivity as part of the adoption process.

<u>List of recommendations for coverage of adoption treatment of accessibility and inclusivity</u>

1. Assess professor(s) awareness of student population and their needs to determine if content adoption will be in line with factors such as economic status, reading level, etc..

2. Is considered print content offered in accessible format(s) (braille, audio, appropriate contrast, font size, etc.)
(http://www.pcar.org/sites/default/files/file/TA/Creating-Accessible-Print-Materials-DoH-Massachussets.pdf)

3. Is digital content offered in accessible format and/or W3C/WIARIA compliant?

4. Is professor aware of ADA and ADA related compliance standards?

vi)   Progress

   a) Facebook Integration

   Concept: Performance/progress   feedback   can   be provided and accessed through facebook.

FIGURE 21. Mobile progress indicator

b) Personalized Performance Feedback

Concept: Graphical representation of reps adoption performance to date based on collectve feedback from all adoption stakeholders. Rep can personalize performance criteria he/she wants to be received and reported on at the school or individual adoption level.
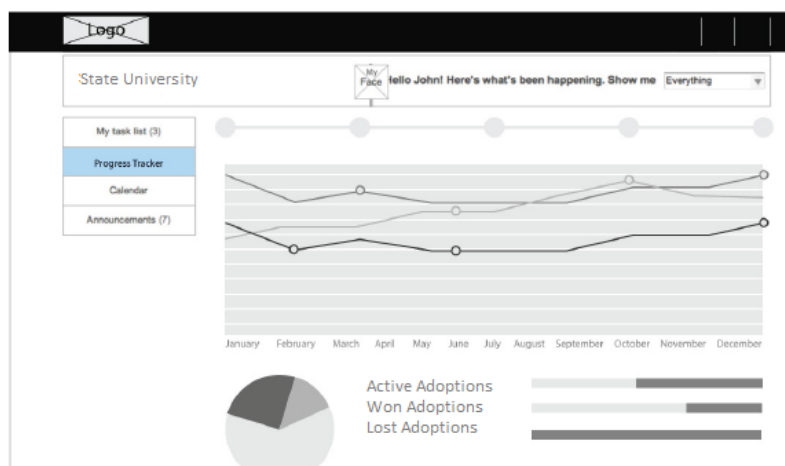

FIGURE 22. Graphical representation of performance

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6 Design Decisions and Rationale

Given that ICART is intended for use as a recommendation tool that informs the activities of higher education sales reps across all stages of the content adoption process the ideas and design concepts that make up the ICART are stage specific. A total of six functional or activity-based stages have been identified as comprising the key stages of the content adoption process in today's adoption environment. Each stage is listed together with a brief description in Table 1 below.

Table 1. Key stages of content adoption process with descriptions

Stage	Description
Adoption Awareness	Involves activities the rep performs that are specific to gaining and maintaining awareness of adoption specific details (ex.adoption insight questions)
Administrative	Involves one-way, single user, push activities that the rep performs in order to plan, execute and manage adoption specific records and/or details (usually from within SFDC only) and also includes treatment of any digital applications that the rep uses to carry out administrative activities (ex. updating the adoption course role, sending out a review copy etc.).
Adoption Activity	Involves planning, executing and managing adoption specific, push-pull, multi-user activities that the rep performs during the adoption process (ex. Setting up and running meetings, presentations etc.)
Stakeholder Interactions	Involves the planning, execution and management of person to person interaction during the adoption process unique to each adoption scenario across any adoption specific stakeholders (ex. Communication between rep and in-house sales team, rep visit w bookstore manager, etc.)
Engagement Activity	Involves the planning, execution and management of any activities designed to engage end users with the content under consideration (ex. Book comp, online suite test drive etc.)
Progress	Involves any activities performed during the adoption process that pertain to communicating and facilitating rep and/or adoption specific progress.

Breaking down the content adoption process in this way also makes it easy for the rep, and even other adoption stakeholders, to understand and visualize the adoption process. Providing transparency to, and an understanding of, the content adoption process was a major goal of this project.

Each of the key stages is functional or activity-based and so are not listed in any chronological order relative to one another. This is why there is no numbering associated with each stage. Furthermore, because of the dynamic nature of any content adoption environment there is constant back and forth between any stage at any one time as relates to the adoption activities that the rep performs. However, where necessary, for any recommendations provided by the ICART that are time-dependent or relate to activities, that occur at a certain point in time during the adoption process, an attempt has been made to include temporal references such as "early", "mid" or "late" stage.

Another major goal of this project, through the design of the ICART, is to provide the rep with an understanding of, and recommendations for, how to navigate through the content adoption process in a way that departs from the one size fits all tactics of traditional adoptions and instead allows the rep to approach the adoption in ways that are inclusive of many of the considerations unique to today-s hybrid print-digital content

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adoption environment. For example, because both print and digital content formats play a role in today's adoptions the ICART provides recommendations inclusive of both formats via the content format type by scenario sorter (Figure 13). Second, because the ICART seeks to break down the walls that prevent transparency to communication between adoption stakeholders in order to create a more open and social adoption environment, the ICART includes concepts such as the adoption specific URL (Figure 19) and the adoption specific discussion forum (Figure 17). In the context of linclusivity, the ICART also addresses and provides recommendations for how the rep can engage more than just the professor during the adoption process, as has traditionally been the case, by recommending that the rep engage students and even the bookstore during the adoption process as well as ways for how to do that.

The design of ICART also delivers on the promise of providing a more simplified and easy to understand concept of the historically complex content adoption process by presenting the content adoption process in a more visual way both on a high level by way of the ICART touchpoint map (Figure 10) and on a low level through individual content adoption stage-related concepts such as the interactive content adoption timeline (Figure 16), adoption specific discussion forum (Figure 17) and graphical representation

of adoption performance (Figure 22). Even the visual representation of individual stage-based recommendation checklists such as the essential questions checklist (Figure 11) and the recommended activities checklist (Figure 12) make it easier for the rep to access specific items and see them in one place.

Lastly, a major goal of the design of the ICART was to present concepts for ways in which rep-related content adoption activities can be accessed and executed more efficiently. Several features of the ICART allow for this. These include any of the recommendation checklists which outline exactly what the rep should do for certain stage-related tasks such as: a) what essential questions to ask at the outset of any adoption via the essential questions checklist (Figure 11); b) recommendations of the activities that the rep should perform throughout the entire duration of the adoption via the recommended activities checklist (Figure 12); c) recommendations of available content types the rep can suggest as well as in what instances each should be prescribed via the format type by scenario sorter (Figure 13); d) an easy way to query what software application the rep should use to carry out adoption related tasks via the application recommendation search feature (Figure 14).

7. Contributions: Unique and to Inclusive Design

Ultimately the unique contribution of this research to the fields of educational content sales and inclusive design respectively include:

7.1 Educational content sales

a) provides a concept for a current content adoption tool that addresses the specific content adoption needs of the sales rep

b) provides a concept for a content adoption tool better suited to today's unique content adoption environment

c) provides a concept for a tool that can be used by sales reps as a training and field tool to assist with single-text content adoptions in today's unique print-digital content adoption environment

d) provides sales reps with a tool that reduces field sales inefficiencies typically encountered and in turn helping them realize and close viable sales opportunities faster;

e) provides a concept for a content adoption tool that is web-based

7.2 Inclusive design:

a) provides reps with a tools that enables them to facilitate a more inclusive one-size fits one adoption outcome uniquely suited to each individual adoption thereby realizing a richer learning experience for today's adoption environment;

f) provides a sales tool that incorporates inclusive design principles and therefore transfers those design principles directly into the adoption itself including the use of flexible formatting options, customizing content, engaging a broader user base, suggestions for inclusion of digital content that is ADA compliant as well as caters to multiple learning types etc.

8 Next Steps

Having presented a novel concept for a tool that informs and aids sales reps with the content adoption process in today's unique hybrid content adoption environment there are several next steps that can be taken. First, it is desired to disseminate this research into the broader community. This can entail submitting this research for publication as well as sharing with the higher education and other communities by way of blogs or conference presentations. It is also desired to see the ICART concept through to practical implementation in the sales field. This will require initial development in a beta environment by creating higher fidelity mock-ups as well as development in a live online environment. During further design and development next steps will also require user testing and focus groups to understand how closely the presented concepts are in line with actual user needs.

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10 Appendix A – Use Cases for Design Concept

USE CASES

1	Frustrations in the sales process (lack of transparency to actual adoption mechanics and key decision points, what questions to ask, what actions to perform and when)
2	Committee adoption and associated mechanics need transparency
3	Inefficiencies with rep activities across stages of adoption process
4	Involving students in the process and/or get professor more in tune w students and their needs;
5	Publishers and their content are silos (why cant all publishers by in the same silo and professor sees all and pics and matches what works best)
6	One stop shopping in a convenient format for rep to use regarding a tool to use in the field
7	The time it takes to find content (perhaps related to #3 and 4 above)
8	Provide a vehicle that will give rep more credibility during the adoption process
9	Provide a means for the rep to be more creative but to what end (i.e. there are limitations to how creative you can get…mainly $)
10	Having identified that students are not typically involved in the content decisions
11	Recommended focus on many of the new things that seem to be value add such as custom formats, adaptive learning, social learning
12	Recommendations for the rep to talk through with the prof that pushes the reps conversation with the professor into disruptive territory with topics like mobile, creating your own content etc.
13	Focus on where the professor wants to see their course rather than where their course is today.
14	Why are we focusing in a committee structure sale vs individual adoption sale?…maybe iCART can propose selling to faculty in a different way that is more efficient for them too?
15	Misconceptions about certain adoption features and how to address them

11 Appendix B - Observations and problems common in stages of content adoption process

Observations and Problems

Adoption Awareness	Admin	Adoption Activity	Stakeholder Interaction	Engagement Activity	Progress	Rep & Professor
I lose sight of the key questions that I need to ask to get background information about an adoption.	There are so many tools and applications for me to use on the job. I wish there was an easier way for me to remember which one to use when.	I work so many adoptions in so many schools that I have a hard time keeping track of which one is happening when.	I know there are a lot of in-house people that support me in my role but I have trouble understanding who they are and when and how to use them?	How can I get the professor excited about our product(s)?	It would be helpful if there were an easy way for me to see my adoption performance status.	It would be helpful if the professor could notify me quickly and easily about adoption related items.
There are so many activities that have to happen to fully service an adoption. How can I make sure I know what they are and that I've done them all?	Sometimes it feels like answering my email inbox is a second job and wish I could more efficiently do that.	Sometimes I miss certain adoption communicatons because there are so many and across different platforms. I wish they could all filter into one place by adoption.	I'm told the bookstore is important but I don't know how to leverage it to help me?	Students are clearly the end users of any adoption outcome yet few professors I talk to admit to understanding their needs. How can I involve the students?	How am I performing toward my sales objectives and goals?	I wish there was a quick and easy way to capture and facilitate on-going communication between rep and across all profs involved in an adoption.
There are so many content formats available. How do I know where to start and what to recommend?	I have to plan each of my campus visits but I struggle with how to?			I struggle to come up with ways to demonstrate how I can challenge the professor to push the adoption envelope		
	I have so many schools and professors I struggle to remember and keep up w what to do and when for each.			Many professors do not address the needs of students across ALL levels of ability when making adoption decisions. I wish I new how to help them.		